Elfin Cove Community Plan

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Prepared by the

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in association with

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Acknowledgements

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The plan was developed in association with Southeast Strategies and Glenn Gray and Associates.

Cover photographs taken by Glenn Gray, 2007.

Table of Contents

List of Appendices

List of Tables

List of Figures

List of Abbreviations

ACMP	Alaska Coastal Management Program
ADF&G	Alaska Department of Fish and Game
BESS	Battery Energy Storage System
DOL&WD	Alaska Department of Labor and Workforce Development
CECNPC	Community of Elfin Cove NonProfit Association
CPR	Cardiopulmonary resuscitation
CQE	Community Quota Entities
DCCED	Alaska Department of Commerce, Community and Economic Development
DEC	Alaska Department of Environmental Conservation
DOT&PF	Alaska Department of Transportation and Public Facilities
DNR	Alaska Department of Natural Resources
ECFC	Elfin Cove Facilities Committee
ECUC	Elfin Cove Utility Committee
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
EPA	Environmental Protection Agency
FERC	Federal Energy Regulatory Commission
HDPE	High Density Polyethylene
JEDC	Juneau Economic Development Council
MHTA	Alaska Mental Health Trust Authority
NOAA	National Oceanic and Atmospheric Administration
PCE	Power Cost Equalization
PILT	Payment in Lieu of Taxes
USDA	U.S. Department of Agriculture
VPSO	Village Public Safety Officer

CHAPTER 1: INTRODUCTION

Elfin Cove is a remote community located in a picturesque cove at the north end of Chichagof Island in the Southeast Alaska archipelago (See Figure 2.1). During the winter, a small but diverse population makes a living off the land and waters of the community. When summer arrives, the population expands dramatically as commercial fishers, lodge owners and employees, and other part-time residents arrive in force. Everyone with ties to the community, whether those who visit it for the first time or those who live there full time, recognize the uniqueness of the community in its tranquil setting and proximity to abundant marine resources.

This plan provides a starting point for the community to examine its options for the future. It identifies community values and goals, opportunities and challenges, and strategies to improve the quality of life in Elfin Cove. When developing the plan, the community of Elfin Cove emphasized the need to develop a "living plan." To make this happen, it will be necessary to establish annual goals, monitor progress towards reaching those goals, and revise the plan on a regular basis to ensure it reflects the needs of the community.

1.1 Overview of the Plan

The plan consists of four chapters. Chapter 1 describes the purpose of the plan and provides background information about the planning effort. Chapter 2 provides a profile of the community including information about its history, natural resources, infrastructure, demographics, and economy. Chapter 3 identifies community goals, challenges and strategies to take advantage of opportunities facing the community. The last chapter of the plan, Chapter 4, describes methods that will be used to ensure implementation of the plan and periodic revisions to respond to changing conditions. Appendices to the plan include an inventory of community characteristics, a description of state and federal land and resource management agencies, an inventory of the water and sewer systems, an inventory of community buildings and fuel system, a description of ocean energy resources, and a discussion of governance options.

1.2 Planning Effort

A 2006 community survey provided the seeds for this plan. The Community of Elfin Cove Non-Profit Corporation (CECNPC) completed the survey with assistance from the Division of Community Advocacy of the Alaska Department of Commerce, Community and Economic Development (DCCED) (Grewe and Caldwell 2006). The survey addressed quality of life, infrastructure development and economic factors that will be important for Elfin Cove's future.

The CECNPC applied for a grant to develop the community plan. The Denali Commission funded the development of the plan through a grant administered by the Division of Community Advocacy in the DCCED. As a result of funding limitations and a short time

frame for completion of the plan, the CECNPC opted for a strategic planning approach that focused on the most important opportunities for the community. The plan contains both long- and short-term goals and strategies.

The methodology for the plan included a combination of public meetings, interviews and research. A meeting held in May 2007 provided members of the community with an opportunity to discuss community values, a vision for the future, and issues and goals that should be addressed in the plan. The consultants reviewed the DCCED community survey and existing studies and documents relevant to the community and performed other relevant research. In addition, they conducted in-person meetings in the community and followed up with telephone interviews. The initial strategies to implement plan goals were developed in consultation with community leaders. A July 2007 meeting provided members of the community with an opportunity to provide input on the draft plan. Information from this meeting and written comments on the draft plan were used to develop the final plan in August 2007.

1.3 Community Values

The people of Elfin Cove represent diverse points of view, but most residents share some basic core values. Residents of the community value the quality of life in Elfin Cove including some of the characteristics described below.

- **Environment:** Elfin Cove is surrounded by outstanding natural beauty, a clean environment and abundant natural resources, including some of Alaska's best fishing grounds. There is no logging in the vicinity of the community.
- **Independence:** The independent spirit of Elfin Cove residents and the absence of a formal local government promote a "live and let live" attitude.
- **Cooperation:** While Elfin Cove residents value self-sufficiency, neighbors depend on each other for friendship and assistance during times of need.
- **Volunteerism:** Residents place a great value on volunteerism to provide and maintain community services and facilities.
- **Infrastructure:** The community appreciates the infrastructure available in Elfin Cove including electric power, clean drinking water, public docks, boardwalks, and a fuel cooperative that ensures a steady supply of fuel.
- **Unique Setting:** The seemingly slow pace of Elfin Cove provides an opportunity to live close to the land and water without distractions common to communities located on a road or ferry system. Above all, residents want to ensure that future growth does not diminish the quality of life and unique character of the community.

While the residents of Elfin Cove share many values, individual groups within the community sometimes have differing values. For example, year-round residents pride themselves on being able to make a living in a remote Alaska community. They keep food on their tables and do what it takes to keep the community going through the winter, whether it be shoveling snow from the boardwalk, repairing docks or getting the water

system back on line after a freeze. Some year-round residents report feeling that seasonal residents benefit from the resources but do not share in the hardships of winter life.

Seasonal residents include lodge owners and their staff, commercial fishers who live in other areas, other residents who winter outside of Elfin Cove, and people who have vacation homes in the community. The diverse interests of the seasonal population lead to a potential for different values from each other and from year-round residents.

Commercial and sport charter fishers share some values, but the nature of their vocations also involves a potential for differing values. Commercial and charter fishers compete for the same limited resources, and increased allocation to one group will reduce the allocation to the other. While charter and lodge businesses depend on bringing tourists to the community, commercial fishers earn their living in greater isolation. Both groups, however, agree on the importance of sustaining healthy fisheries.

Community members also have different values with respect to tourism. While some residents believe tourism would add to a sustainable economy, others place great importance on privacy. Some residents may not welcome tourism, but they understand that tourists have a right to visit the community and that they provide some economic benefit.

Many residents of Elfin Cove recognize the importance of a sustainable economy to the community. Almost everyone, however, does not want development to change the unique character of the community.

1.4 Community Vision

Participants at the initial Community Plan meeting were asked what they would like to see Elfin Cove look like in 20 years. The following ideas regarding a vision for Elfin Cove's future were provided by those attending the meeting:

- Residents of all ages;
- Model community for renewable energy;
- Successful, year-round small businesses;
- Reliable, affordable access year-round;
- Limited government;
- Clean environment; and
- Local control of surrounding lands and waters, including the fishing grounds.

The Community of Elfin Cove vision statement was synthesized from that list.

Vision Statement: *In 20 years, Elfin Cove will be a thriving community with residents of all ages, successful year-round small businesses, a clean environment, and reliable and affordable year-round access. It will be a model community for renewable energy, have limited government, and maintain local control of surrounding lands and waters.*

CHAPTER 2: COMMUNITY OVERVIEW

This chapter provides an overview of Elfin Cove beginning with a description of the history of the community. Next, the overview addresses the natural environment including sections on location and geography, climate, environment and natural resources, and natural hazards. Sections on social and economic characteristics address subsistence, land use, demographics, and the economy. Transportation, utilities and public facilities are discussed next. This chapter ends with an overview of leadership and community organization. Appendix A contains an inventory of community social, economic, transportation, utility, and other information.

2.1 History

Elfin Cove's protective inner and outer harbors and proximity to the fishing grounds made it a natural choice of fishers to rest and seek shelter from storms. By 1909 fishers had named the area the "Gunk Hole," which was an East Coast term for a good harbor with a narrow, rocky entrance (Swanson 1964).

In 1927, a fish buyer set up in the cove with two boats, but one of the boats sank soon after. In response to the need for a fish buyer, E.O. "Ernie" Swanson gave up his fox farm at nearby Three-Hill Island to set up a fish buying station in 1928 at the Gunk Hole (Lowell 1945). A friend who ran a fox farm on the Inian Islands lent the money to start the fish buying business which consisted of "a couple of log floats and a small warehouse ashore" (Swanson 1964, p. 12). Soon, more docks were built in the inner harbor, and in 1933 the first cabin was built ashore followed by a bath house. Ernie expanded the business by starting a general store, dock, and a restaurant.

A bit of mystery surrounds the origin of the name of the community. One story recounts that the first postmaster, Ernie Swanson's wife Ruth, didn't want the job unless the community name was changed. So, when the first post office was established in 1935, "The Gunk Hole" became Elfin Cove, named after Ernie's boat, the *Elfin*. Another story recounts that Ruth Swanson chose the name Elfin Cove because such a misty, forested place would be an appropriate habitat for elves.

The community continued to grow, and in 1947, the official population of Elfin Cove was 75. John Lowell, another fish buyer, arrived in the 1940s and built a second dock, warehouse, store, and restaurant. By 1960, the official population was 60, and the community obtained power from a diesel electric generator supplemented by hydroelectric power from a Pelton wheel. Wood and coal burners were mostly replaced by oil stoves for heat.

In the 1980s, community volunteers obtained funding for an upgraded diesel-powered electric system, a water system, and a community building with a school. The school closed in 1998 due to dwindling enrollment.

Originally a commercial fishing community, Elfin Cove has transitioned over the past 20 years to a mixed economy. Today, the major contributors to the economy are commercial fishing, tourism through income from lodges and associated sport fishing, and visits from small cruise ships and independent travelers. The resident population ranges from as few as 25 people during the winter to an estimated 177 people in the summer (Leon 2007). Summer residents include lodge workers, commercial fishers and those with summer homes in the community.

In recent years, residents of Elfin Cove have established a small museum that documents the history of the community and surrounding region. One of the projects of the museum is to catalog all of the wooden fishing boats used historically in the Cross Sound fishery.

2.2 Location and Geography

Elfin Cove is a fishing community located in Southeast Alaska on the north end of Chichagof Island at approximately 58°12'30'north latitude and 136°21' west longitude. The community is located about 85 air miles from Juneau, and the closest communities are Hoonah, 33 air miles to the east, and Pelican, about 20 air miles to the southwest.

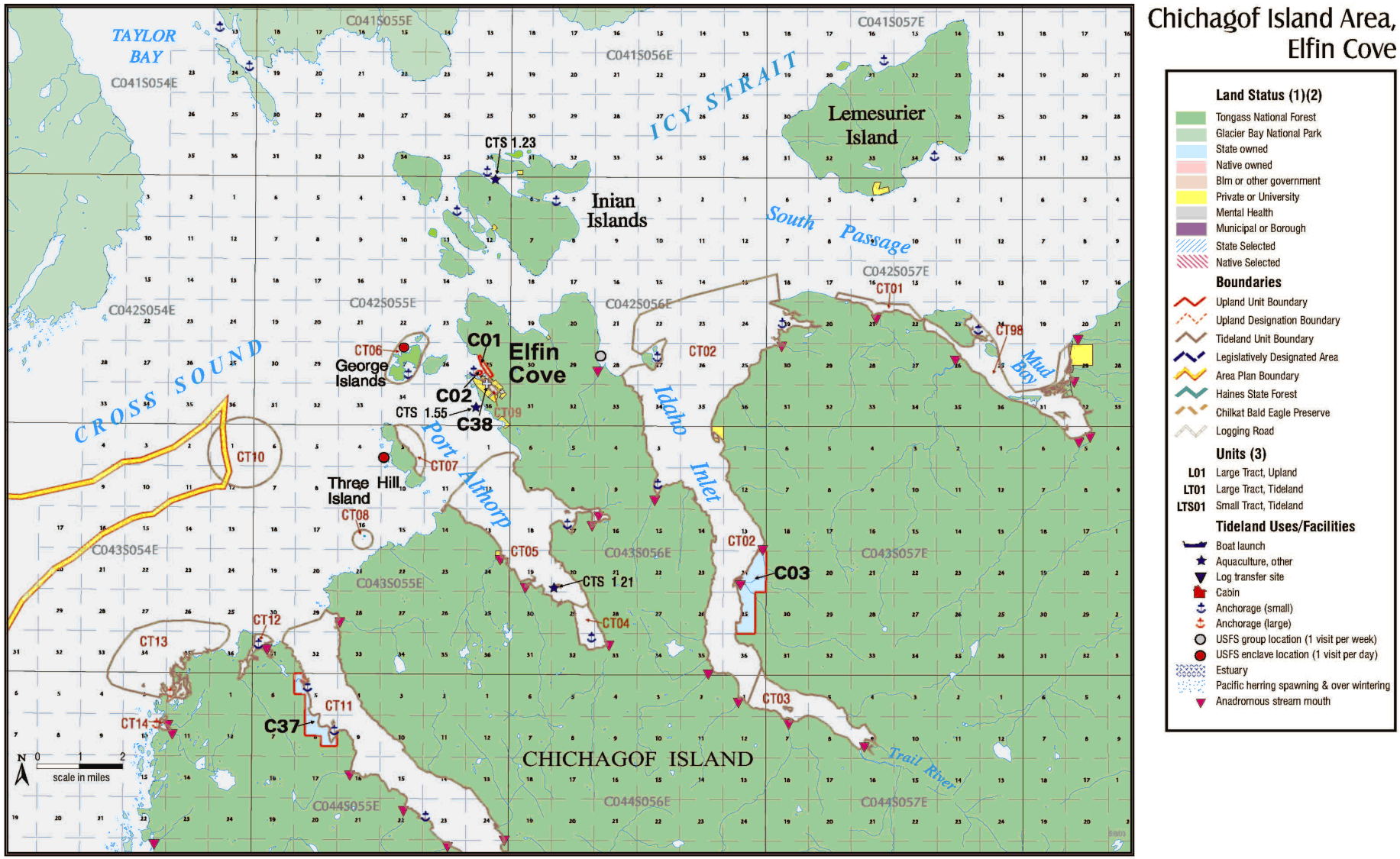
A forested island shields the outer cove, and a narrow neck of water leads to a broad inner cove. There are no streets, roads or cars. Transportation within the community is by boat or by foot, and a boardwalk meanders through the community connecting the inner and outer harbors. Homes, lodges and stores line the boardwalk at the water's edge. A number of docks in the inner and outer harbors provide access to the marine waters.

Several small streams drain into the inner harbor. A 200-foot high ridge to the west of the community separates it from Port Althorp, and a 2,000-foot high mountain separates the community from Idaho Inlet to the east. The community encompasses 0.13 square miles (82.14 acres) of land and 0.1 square miles of water.

Some Elfin Cove residents pride themselves on their ability to make a living of their own creation with the least amount of government interference. The community is unincorporated, and the CECNPC manages most of the community's affairs.

Elfin Cove provides easy access to the Fairweather, Cross Sound and Icy Strait fishing grounds. Located near Cross Sound at the north end of the "Inside Passage," Elfin Cove is an important area to seek shelter from storms and a refueling stop for commercial and sport fishers and private boaters. The community's strategic location provides the last stop for vessels traveling north across the Gulf of Alaska and the first stop for those traveling south from the Gulf. It is also first landfall for many sailing vessels traveling from the South Pacific.

Figure 2.1 Elfin Cove Vicinity Map



Source: Alaska Department of Natural Resources 2002.

2.3 Climate

Elfin Cove has a maritime climate characterized by cool summers, moderate winters and a lot of precipitation. The marine waters have a moderating effect on the temperature. These waters are warmed by the Japanese current which is an eddy off the Kuroshio Drift. The coastal mountains affect atmospheric circulation, resulting in typically cloudy skies and abundant moisture.

Local weather has been recorded since the 1940s. The average temperature in the summer months (June through August) generally ranges from 46° to 60° F and in the winter months (November through February) between 29° to 40° F (Western Region Climate Center 2007). The average annual precipitation is about 103 inches, and the average total snowfall is about 99 inches. In the winter of 2006-2007, the community experienced a record snowfall of 289 inches (24.08 feet).

Daylight hours range from more than 18 hours at summer solstice to 7.5 hours at winter solstice. The long periods of twilight expand the visibility to 22 hours in the summer and 8.5 hours in the winter.

Although inner areas of the Alexander Archipelago in Southeast Alaska experience tidal ranges of up to 24 feet (-4 to +20 feet), the tidal range along the outer areas near the Gulf of Alaska is considerably less. In Elfin Cove, average tidal range is 8.6 feet between mean high water (10.1 feet) and mean low water (1.5 feet).

2.4 Environment and Natural Resources

The land and waters of Southeast Alaska provide a rich variety of natural resources. Abundant fish and wildlife inhabit the waters and upland areas around Elfin Cove. The community is located within an ecosystem unit called the West Chichagof Island Ecological Province (USDA Forest Service 1997b). This area is characterized by relatively gentle topography with many small islands along an irregular coastline.

2.4.1 Soils

Most of the area surrounding Elfin Cove consists of thin soils over bedrock. On the east side of the community, the bedrock is composed of granite, and on the west side greywacke is the dominant rock. The shoreline is composed of boulder and cobble beaches and unconsolidated alluvial sediments (Alaska Department of Environmental Conservation 1997).

2.4.2 Vegetation

Elfin Cove is located within the Southeast Alaska coastal temperate rain forest. Conifers are the dominant tree species primarily composed of Sitka spruce and western hemlock.

Mountain hemlock and Alaska cedar may also be found within the forests, and Sitka alders typically grow along the coast, streams and in disturbed areas. The undergrowth is composed of blueberries, huckleberries, devil's club, and moss.

Wetland bog areas, known as muskegs, support sedges, mosses, Labrador tea, and other small plants. Stunted lodgepole pines and mountain hemlocks are also associated with muskegs.

Alpine plant communities begin at an altitude of 2,500 – 3,000 feet. This zone characteristically has thin soils, short alpine plants, and stunted, slow growing trees in the transition zone to forested areas.

2.4.3 Fish and Wildlife

Large land mammals in the Elfin Cove area include brown bears and Sitka black-tailed deer. Some of the largest populations of brown bear in Alaska are located on Chichagof Island. Small mammals found on the island include martin, mink, and otter. No black bears, wolves, or mountain goats inhabit the island.

Marine mammals common to the Elfin Cove area include seals, sea lions, sea otters, Dall's porpoise, and humpback whales. All five species of salmon occur in the vicinity of Elfin Cove as well as halibut, sablefish, other flatfish, rockfish, herring, and shellfish.

Bird populations include resident bald eagles, falcons, ducks, geese, numerous other pelagic birds, and migrating birds including a number of incidental species.

Transition zones between different areas provide important wildlife habitat. Examples of transition zones, or "landscape types," include the beach fringe areas, riparian corridors (areas around streams), estuaries (brackish water areas), and areas around muskegs.

2.4.4 Endangered and Threatened Species

As required by the Endangered Species Act, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service list species that are threatened (i.e., likely to become endangered) and endangered (i.e., in danger of extinction in all or a substantial part of its range). The designation of threatened and endangered species affects land and water uses around Elfin Cove. Endangered species in Southeast Alaska likely to occur in the vicinity of Elfin Cove include American peregrine falcon (Falco peregrinus anatum), humpback whale (Megaptera novaeangliae) and Snake River sockeye salmon (Onochorhynchus nerka). Threatened species include Steller sea lion (Eumetopias jubata), Snake River Spring/Summer Chinook salmon (Onochorhynchus tshawytshca), and Snake River Fall Chinook salmon (Onochorhynchus tshawytshca). The Forest Service has identified additional species it considers sensitive (USDA Forest Service 1997b, p. 3-232).

2.4.5 Minerals

The west coast of Chichagof Island supports a mineralized area known as the "Chichagof Gold Belt." Former mines in this area include the Western Chichagof Mine near Klag Bay and the Hurst-Chichigof Mine at Kimshan Cove. No oil resources have been identified in the Elfin Cove area, but oil seeps and films have been reported near Icy Bay which is located about 200 miles northwest of Elfin Cove.

2.4.6 Air and Water Quality

The region supports excellent air and water quality although some localized pollution occurs in the community. Air quality becomes a problem in the immediate vicinity of the community during times when trash is incinerated. Water quality can also be problematic as a result of sewage outfalls, although there is considerable flushing action in the harbors.

2.4.7 Invasive Species

While not a major problem at this time, invasive species are a growing concern in Southeast Alaska (Alaska Natural Heritage Program 2007). Invasive species are non-native plants and animals that have the ability to spread quickly and reduce biodiversity by competing with native species. Invasive plants found in the region include Japanese knotweed, spotted knotweed, orange hawkweed, and garlic mustard. The greatest potential for introduction of invasive plants to Elfin Cove is through plantings in local gardens. Marine invasive species are a concern in Alaska because they can arrive in ballast water or be spread by currents. Alaska waters are being monitored for green crab, but to date none have been found. Surveys in Kachemak Bay during 2000 found 13 non-indigenous species, and one species, *Agalma elegans*, was collected at Elfin Cove (Hines and Ruiz 2001).

2.4.8 Historic and Archaeological Resources

Although no comprehensive surveys have been completed, a number of historic and prehistoric resources have been reported in the vicinity of Elfin Cove (Dale 2007 pers. comm.). Archaeological resources include indigenous camps and village sites. Historic resources include abandoned mines, fox farms, cabins, navigational aids, and WWII objects. These sites are catalogued by the Office of History and Archaeology in the Alaska Department of Natural Resources, but specific locations are not published due to the need to protect the sites from looting.

2.5 Subsistence

Many residents of Elfin Cove depend on the abundant fish, wildlife and plant resources for subsistence needs, mostly for food with some resources gathered for garden fertilizer and home heating. The latest estimates of subsistence harvest by community members

were prepared by the Alaska Department of Fish and Game in 1987 (Betts et al. 1987). While this information is dated, it gives an indication of past importance of subsistence foods to the households in Elfin Cove. Anecdotal evidence suggests that present day dependence on subsistence resources is much less than it was in the past.

The 1987 study found that Elfin Cove residents harvested approximately 827 lbs of subsistence foods per household (263 lbs per person). That harvest was made up of about 227 lbs of deer, 254 lbs of salmon, 98 lbs of halibut, 74 lbs of shell fish, 87 lbs of other fish, and about 86 lbs of vegetation (mainly berries and kelp). Starfish, herring and seaweed were the main species used for garden fertilizer. An estimated 118 cords of wood were harvested by the community in 1987.

2.6 Natural Hazards

A number of natural hazards affect the Elfin Cove area. The section presents information about storm surges, floods, erosion, earthquakes and tsunamis, landslides and avalanches, wildfire, and other hazards and their potential impact on the area.

2.6.1 Storm Surges, Floods and Erosion

Elfin Cove is protected from major storms because the cove is shielded from the open water, but it could be subject to extreme storm surges. Low pressure systems commonly develop in the Gulf of Alaska and result in severe storms. In addition to surges, storms can result in localized flooding. No major streams are located in Elfin Cove, but minor flooding can occur. Erosion is not a major concern for the community because of the rocky coast in the vicinity of Elfin Cove.

2.6.2 Earthquakes and Tsunamis

Elfin Cove is located near the Peril Strait and Fairweather seismic faults. The community has been classified as a Zone 3 seismic probability, and an earthquake of a 6.0 to 8.8 magnitude on the Richter scale is possible. Significant earthquakes and tsunamis have occurred along the Fairweather fault line. Over 100 earthquakes of a magnitude greater than 5.0 were recorded in the Yakataga area north of Elfin Cove between 1899 and 1993 (Combellick and Motyka 1995). An 1899 earthquake with a magnitude of 8.2 occurred in Yakutat Bay which resulted in a 10-meter high tsunami. In 1958, a 7.9 magnitude earthquake occurred in Lituya Bay, approximately 50 miles northwest of Elfin Cove. An earthquake-triggered landslide caused a tsunami that deforested an area of Lituya Bay 530 meters (1,740 feet) high (Hansen and Combellick 1998).

Tsunami hazards near Elfin Cove are high because of its location near the fault lines and exposure to the Pacific Ocean. Tsunamis can result from earthquakes centered long distances from an area as well as from local events such as earthquakes, landslides and submarine subsidence. For example, a submarine landslide triggered a large wave, also

known as a seiche, in Skagway in 1994. These types of tsunamis and seiches occur with little warning.

2.6.3 Landslides and Avalanches

Landslide and avalanche danger occurs near the steep slopes on the east side of the inner harbor. During October 1996, a landslide caused damage to electrical transmission lines and knocked out telephone service to ten Elfin Cove homes. Two homes sustained damage, and the slide covered the main trail (State of Alaska 2004). Five lots near the 1996 slide were previously withheld from a land sale due to the high risk of a landslide.

2.6.4 Wildfire

Due to the wet climate, wildfires do not pose a major risk. Wildfires that do occur in Southeast Alaska are generally slow moving fires that burn deep into organic soils. Fires can smolder underground for a year or more before resurfacing.

2.6.5 Other Hazards

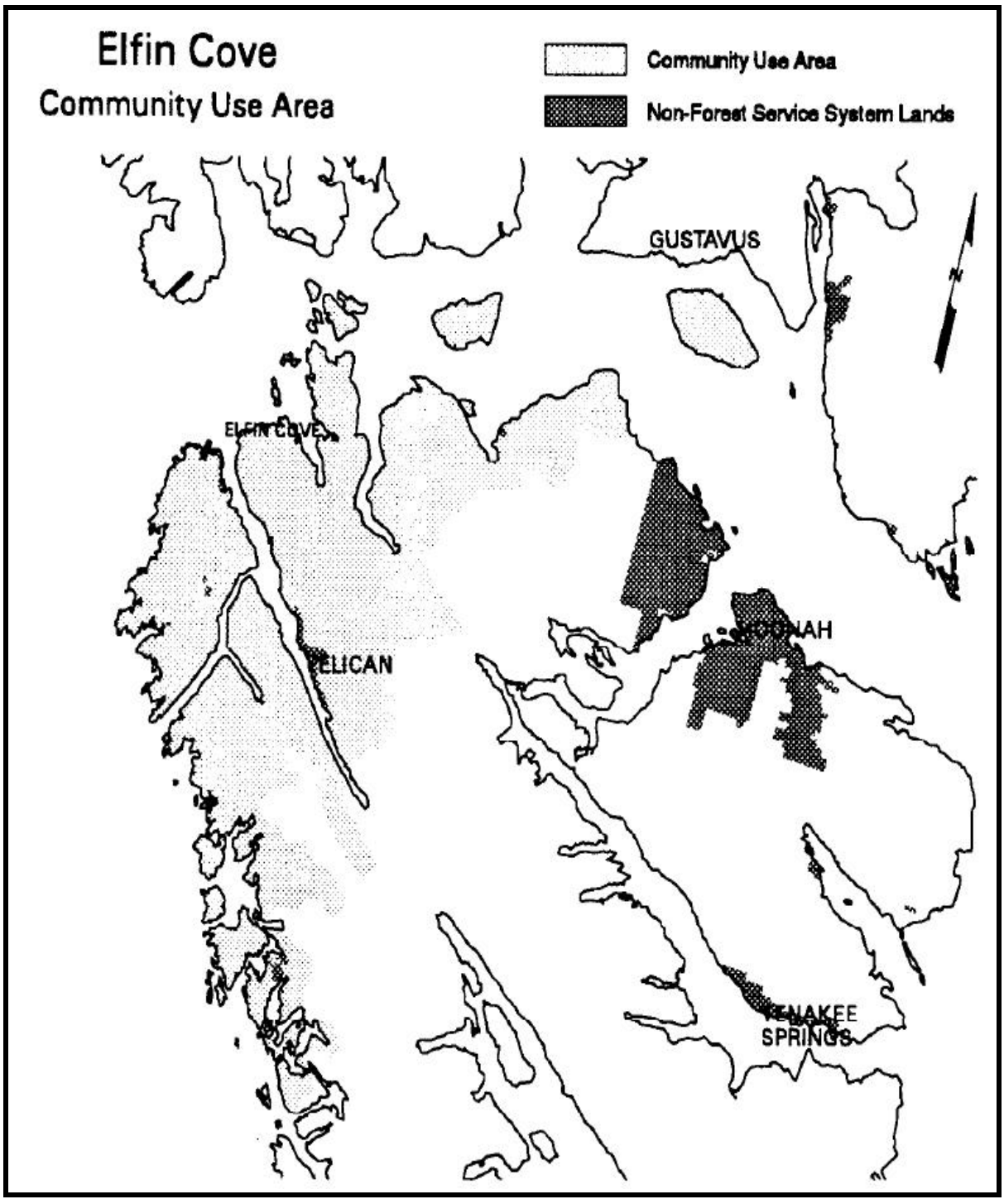
Potential additional hazards include volcano fallout, climate change and radon gas. Elfin Cove is not located near any active volcanoes, but it could be affected by ash fallout from volcanoes located to the northwest. Climate change could affect the occurrence of natural hazards in the future including rising sea level and an increase in storms. Radon gas, which originates from bedrock, poses a household hazard in some buildings throughout Alaska. Although there is no data for Elfin Cove, one study found that concentrations of radon gas in Southeast Alaska homes is less than in other parts of the state (Nye and Kline 1990).

2.7 Land Use

The community of Elfin Cove is located at Sec. 25, T042S, R055E, Copper River Meridian. The area around the community is covered by the USGS Mt. Fairweather quadrangle map. Elfin Cove is located in the Sitka Recording District. The community encompasses .013 sq. miles of land and 0.1 sq. miles of water. This area includes land owned by private individuals and businesses, nonprofit corporations and the Alaska Mental Health Lands Trust Authority (MHTA). This section provides an overview of the current land use in the community.

Most of the area surrounding the community is managed by the USDA, Forest Service except for limited federal lands selected by the State of Alaska and currently managed by the Alaska Department of Natural Resources (DNR). Submerged and tidelands are also owned and managed by DNR.

Figure 2.2 Regional Land Use by Elfin Cove Residents



Source: USDA, Forest Service 2007.

Originally, individuals settled the land around the cove and got permission to use it later. In 1953, Public Land Order 899 provided approximately 80 acres from the Tongass National Forest for the community of Elfin Cove. An additional .29 acres, consisting of two islets, was conveyed to the Community of Elfin Cove as part of a 2005 federal appropriations act. In 1969, the State of Alaska held a land sale offering for 46 lots. The land was sold at an auction and over the counter in Juneau and Anchorage for a total of $61,650 (Snodgrass 1971). Another land sale was held in the mid 1970s for a few parcels of land.

2.7.1 Land Ownership and Management

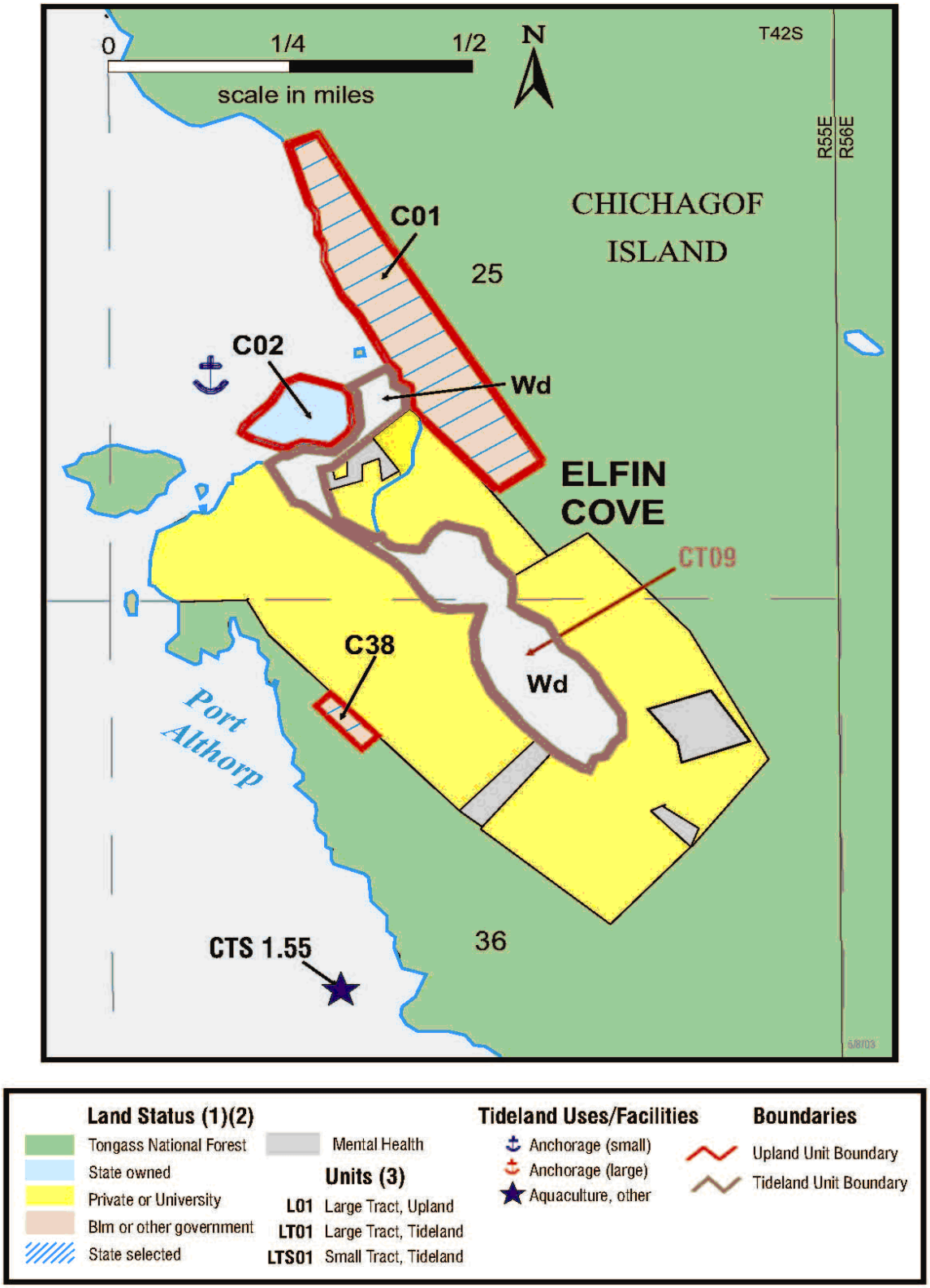
Land in and around Elfin Cove is owned by private individuals, corporations, the MHTA, the State of Alaska, and the federal government.

Federal Land
Most of the land around Elfin Cove is in federal ownership. The community is surrounded by the Tongass National Forest which is managed by the USDA, Forest Service. Glacier Bay National Park and Preserve is located across from Elfin Cove on the north side of Cross Sound. The national forest land adjacent to Elfin Cove is managed for "semi-remote recreation" (USDA, Forest Service 1997a). The Forest service describes this designation as being managed for recreation and tourism in natural-appearing settings and where opportunities for solitude and self-reliance are moderate to high. National forest land on the nearby Inian and Lemesurier Islands has been designed as a wilderness area which is managed for preservation, solitude and primitive recreation with limited motorized access. The area to the south of Port Althorp is designated as "LUDII" which is managed to maintain the wildland characteristics of congressionally-designated roadless areas. This land use allows fish and wildlife enhancement projects and primitive recreation facilities. Figure 2.2 illustrates the areas of the national forest used by residents of Elfin Cove. Although not a designated preserve, the Alaska Department of Fish and Game has closed most of the Port Althorp watershed to hunting of brown bear.

State Land
State land in the vicinity of Elfin Cove includes tidelands currently under state ownership, land selected from the federal government, and land owned by the MHTA. Each of these land categories is briefly discussed below. The annotations in parenthesis related to the DNR area plan.

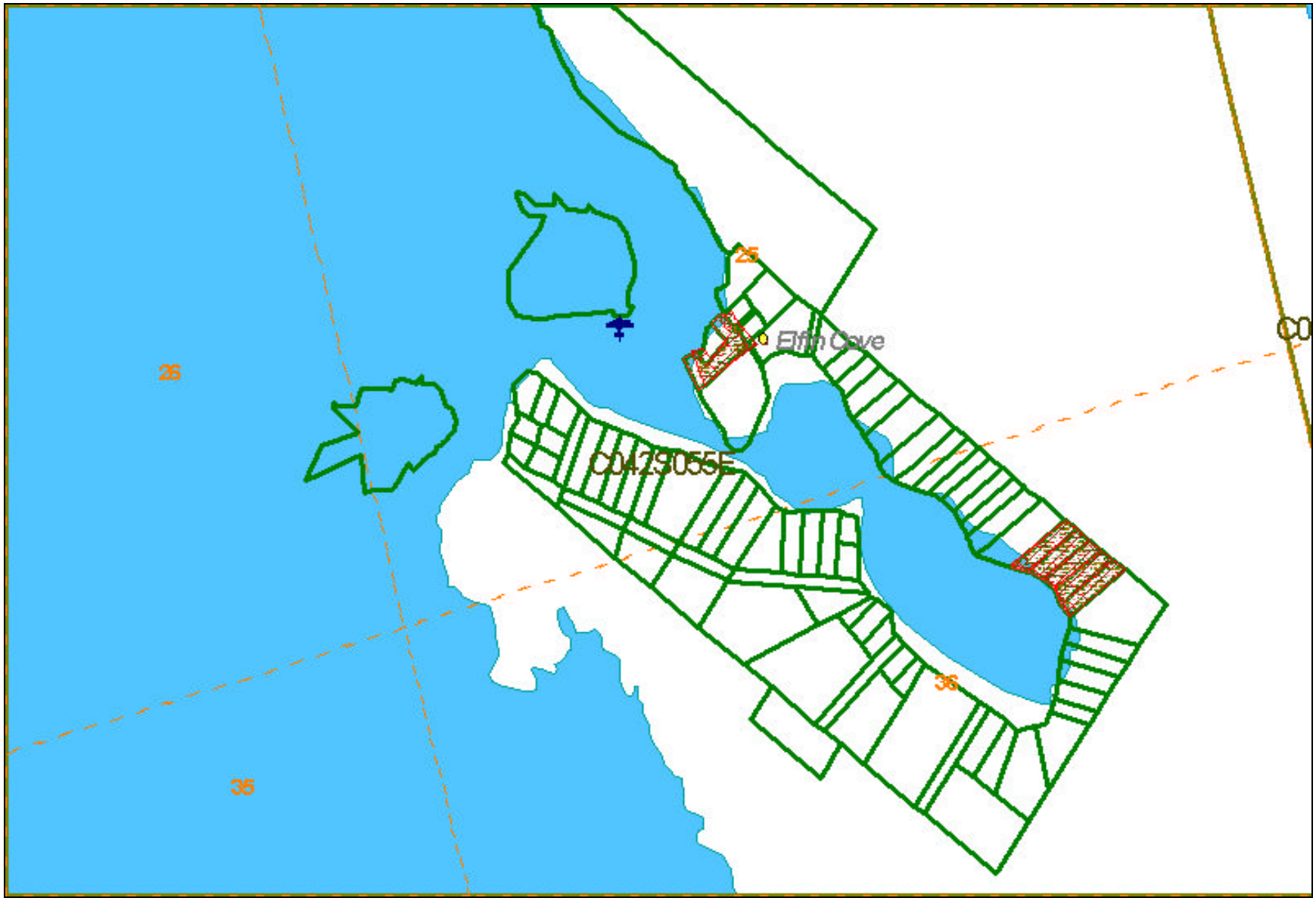
- **State Tidelands and Submerged Lands:** The State of Alaska has designated tidelands and submerged lands adjacent to Elfin Cove for Waterfront Development (Wd) (See Figure 2.3). This management designation allows water-dependent or water-related facilities including piers, docks and seafood processing facilities. A small tideland tract near Elfin Cove at Port Althorp has been designated for a dock associated with a mariculture facility (CTS 1.55).
- **State Selected Land:** The State of Alaska has selected several parcels adjacent to Elfin Cove and in Idaho Inlet (See Figure 2.3). The management measures described below are outlined in the most recent DNR Northern Southeast Area

Figure 2.3 State of Alaska Land Use Designations



Source: Alaska Department of Natural Resources 2002.

Figure 2.4 Mental Health Trust Lands



Source: Mental Health Land Trust 2007.

Plan (Alaska Department of Natural Resources 2002). These areas include lands transferred to the State of Alaska and lands that have been selected but not yet conveyed by the federal government.

  - A small island in the outer harbor, known locally as Mike Island, is designated as "Undeveloped Recreation." The DNR considers only limited recreational development for local use as suitable on the island (see designation C02 in Figure 2.3). This island was originally nominated for State selection by the community for residential, not recreational, purposes (Alaska Department of Natural Resources 1997).
  - The State of Alaska selected a half-mile strip of land along the east side of the outer harbor for community expansion and port expansion (see designation C01 in Figure 2.3). The area plan states that land should not be developed until "sufficient community infrastructure becomes available" (p. 3-309). Until these conditions are met, the area plan indicates the parcel will be managed for scenic and recreational values, but that "less intensive public uses, including needed public facilities, are considered appropriate during the planning period" (p. 3-309).
  - An inland parcel on the west side of Elfin Cove was selected by the State of Alaska for community facilities such as a water tank or communications facility (see designation C38 in Figure 2.3).
  - A parcel located on the east side of Idaho Inlet nine miles south of Elfin Cove was selected for multiple uses including potential settlement and dispersed recreation.

- **Alaska Mental Health Trust Authority Land:** Five parcels at the southeast end of the inner harbor and some land between the outer and inner harbors are owned by MHTA (See Figure 2.4). One parcel of MHTA land holds a community library and playground.

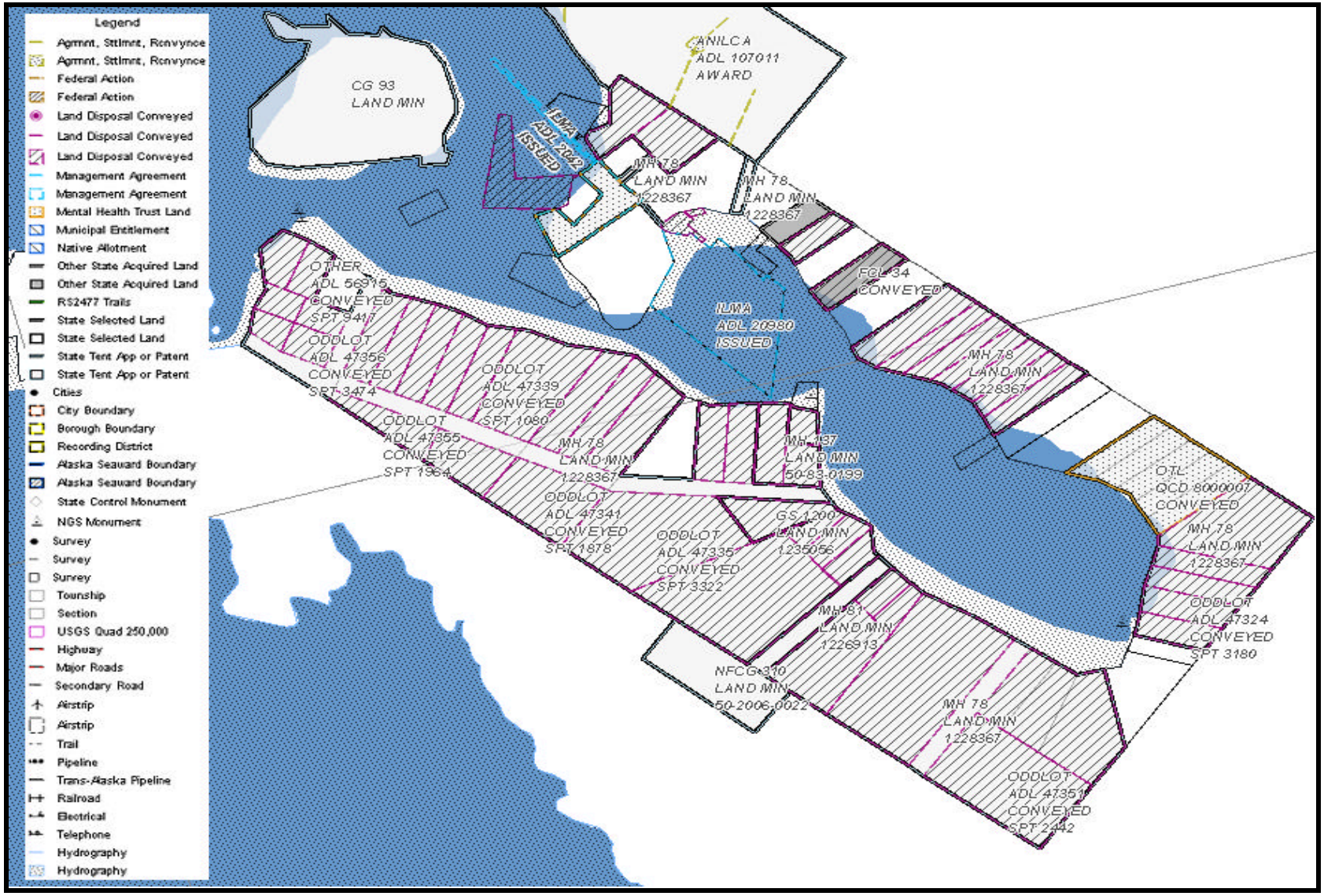
Private Land

Most of the 76 parcels in the community are owned by private individuals. Private businesses are located among private residences. The CECNPC owns several parcels including the community building, community shop, fire hall, fuel dock warehouse, a small building housing the pipeline headers, and the powerhouse. The community facilities are discussed in more detail in Section 2.12. The plat for Elfin Cove is illustrated in Figure 2.5.

2.7.2 Land Use

Most of the community land use occurs close to the water in the inner and outer harbors with some buildings located inland in the area between the two harbors. Water use reflects the orientation of the community to fishing and marine transportation. Tidelands are used for docks, a boat grid, and incineration of trash. Three public docks are available for public use, and a number of additional docks are owned by lodges and private individuals. The Cross Sound Marketing Association, a cooperative of commercial fishers, has a tidelands lease for the dock it owns in the outer harbor near the entrance to the inner harbor.

Figure 2.5 Elfin Cove Plat



Source: Alaska Department of Natural Resources 2007.

Although private, community and MTHA lands abut the water, rights of way and easements have been provided for boardwalks and foot access around the cove. A complete description of access is beyond the scope of this plan, but according to a 1971 study, "In some areas a right-of-way is provided between boundaries, but in other cases, access to property is by easement across another lot. It is doubtful that the easement includes the laying of water lines, power lines etc., and the providing of these community facilities may be impossible without the use of the power of eminent domain." (Snodgrass 1971, p. 2).

2.7.3 Land Management Planning and Permitting

Although Elfin Cove is not an organized municipality, the CECNPC and community residents can participate in state and federal government agency planning and permitting processes. Agencies with land management and permitting authorities for lands and waters in and near Elfin Cove are listed below. Appendix B provides a summary of the management authority for each of these agencies.

- Alaska Department of Natural Resources (DNR)
  - Division of Mining, Land and Water
  - Office of Habitat Management and Permitting
  - Office of Project Management and Permitting
- Alaska Department of Fish and Game (ADF&G)
- Alaska Department of Environmental Conservation (DEC)
- USDA, Forest Service
- NOAA, National Marine Fisheries Service
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers

2.8 Demographics

The Alaska Department of Labor and Workforce Development (DOL&WD) prepares resident population estimates for all Alaska communities in July of each year, except for every ten years when the U. S. Census Bureau estimates population counts for April. Because Elfin Cove is located near productive fishing grounds and has historically been populated by commercial fishers, population can vary greatly depending on location of fish runs, fish buyers, weather, and other variables. In recent years the summer population swells with the operations of fishing lodges and various support industries. Since the local school closed in 1998, resident families with school aged children who live in Elfin Cove have spent the school year in nearby communities so their children could attend public schools, but they returned to their Elfin Cove homes in summer. For these and other reasons, the population estimates developed by DOL&WD may undercount the number of people who consider Elfin Cove their home. Other indicators of population are considered below.

Membership in the CECNPC is open to anyone on the latest published State of Alaska Precinct Voter Registration list for Elfin Cove or with an Elfin Cove mailing address who

maintains a domicile in Elfin Cove, Port Althorp, Inian Island, or Idaho Inlet. Temporarily leaving the area for seasonal reasons does not invalidate membership. While many of these community members are not counted in the official DOL&WD population count, they consider themselves to be residents. The following table presents the official historic State of Alaska population of Elfin Cove, as well as a count of CECNPC members who attended at least one community meeting per year in 2003 to 2007. According to State of Alaska population estimates, the Elfin Cove population peaked in about 1993 at 65 and dropped by nearly 62% by 2006.

Table 2.1
Elfin Cove Population
And Corporation Membership

Year	Population Estimates	Community Meeting Attendance*
1980	28	
1990	57	
1991	57	
1992	57	
1993	65	
1994	56	
1995	44	
1996	52	
1997	52	
1998	50	
1999	50	
2000	32	
2001	28	
2002	32	
2003	32	41
2004	26	42
2005	29	52
2006	25	50
2007	NA	49

Sources: Alaska Department of Labor and Workforce Development, and CECNPC.

*CECNPC estimates an additional 20 corporation members who rarely attend meetings.

As of June 2007, 68 of the 106 post office boxes at Elfin Cove were active (Elfin Cove Postmaster 2007, pers com.). Residents of nearby locales such as Inian Island and Port Althorp often have post office boxes at Elfin Cove. Many of the local lodges have a single box which is used by the business and many or all of its employees. In 2007, 49 people were on the State of Alaska voters' registration list for Elfin Cove, and another 8

people were registered to vote in the nearby areas of Inian Island, Lemesurier Island, and Idaho Inlet.

The DOL&WD population figures in Table 2.1 do not reflect the seasonal fluctuation of population in Elfin Cove. One local resident has been keeping his own survey, noting each home and occupied boat, and the number of occupants residing there (Leon 2007). This informal count also includes employees and guests of lodges as if each lodge bed represents a summer resident. This count is important because it more accurately represents the actual number of people who use Elfin Cove facilities and utilities during the summer season. This unofficial count shows 24 residents during winter of 2006-2007 and 277 residents during summer of 2007.

The U. S. Census Bureau gathers demographic information about communities that is not generally available elsewhere. Although 2000 census data is dated, it provides useful information. The following table reports Elfin Cove population characteristics for 2000.

Table 2.2
Elfin Cove Population Characteristics – 2000 Census

Category	Data	Percent
2000 Population Estimate	32	100.0%
Age - Median Age	47.5	
Under 5 years	0	0.0%
School Age (5-18)	5	10.5%
18 years and over	27	56.8%
62 years and over	7	14.7%
Male	19	40.0%
Female	13	27.4%
Households - Total	15	31.6%
Family Households	9	100.0%
Non-family Households	6	66.7%
Average Family Size	2.67	
Average Household Size	2.13	
Owner-Occupied Housing Units	13	144.4%
Per Capita Personal Income - 2005	$21,837	
Individuals below poverty level	2	6.25%

Sources: 2000 U. S. Census Bureau and the U. S. Bureau of Economic Analysis.

According to the 2000 census, the estimated population for Elfin Cove was 32, about 94% of which was white. The Census Bureau also reported that the median age of Elfin Cove residents was 47.5 years in 2000, about 15 years older than the statewide median age of 32.4 years. The average household size in Elfin Cove was 2.1 persons in 2000, and it is likely smaller now since no school-aged children reside in the community. Per capita personal income was reported by the U. S. Bureau of Economic Analysis at $21,837 in 2005.

2.9 Economic Activity

The economy of Elfin Cove is more diverse than many small communities in Southeast Alaska. The historic economic basis of the community is commercial fishing, and in fact, that is the reason the community came to be. More recent economic activity in the community has come from the development of fishing lodges. There are currently ten active lodges in Elfin Cove and nearby areas such as Gull Cove. Several small cruise ships have stopped at Elfin Cove in recent years; 28 stops were scheduled for the summer of 2007 (Cruise Line Agencies of Alaska 2007). In addition to viewing the beautiful setting, cruise ship passengers are interested in visiting a working rural Alaska community.

2.9.1 Employment and Earnings

This section presents information on historic and current employment in Elfin Cove provided by DOL&WD. The information can be somewhat misleading because of reporting standards for businesses. Self-employed people such as commercial fishers and sole proprietors of small businesses (such as bed and breakfasts) are not counted here. The employment figures represent the number of jobs, not the number of individuals working. Consequently, a person holding two or more jobs throughout the year would be counted here more than once. Also the job count represents the annual average of jobs and it does not show the seasonality of the work. The average annual employment figure is a result of adding the average number of employees per month and dividing by 12.

The following table presents DOL&WD annual employment and wages for Elfin Cove in 2006. Professions and businesses not covered in the count provided by the DOL&WD will be addressed in the following sections.

Table 2.3
Elfin Cove Employment and Wages by Industry – 2006

Average Annual Employment by Industry	Jobs	Annual Payroll
Total Industries	21	$479,170
Agriculture, Forestry, Fisheries, Mining	0	
Construction	0	
Manufacturing	0	
Wholesale Trade	0	
Retail Trade	3	
Transportation, Warehousing & Utilities	5	
Information	0	
Financial, Insurance & Real Estate	0	
Professional & Admin Services	0	
Education, Health & Social Services	0	
Arts, Recreation & Entertainment	13	
Other Services	0	
Public Administration	0	

Source: Alaska Department of Labor and Workforce Development, 2007.

The following table presents jobs by the major employers in Elfin Cove in 2006 according to the DOL&WD. This count is only of those businesses required to pay unemployment insurance to the State of Alaska, and it is derived from reports submitted when these companies pay that insurance. Businesses with home offices outside of Elfin Cove, or who are not subject to paying unemployment insurance (such as self employed people and commercial fishers), are not counted here. In addition to the businesses listed below, there are several other lodges and guesthouses in the area, as well as a pilot boat business, a restaurant/bar, a fish smoker, the Post Office and other small businesses that have employees in Elfin Cove. Self employed residents perform commercial fishing, shipwright services, construction, welding, and other services that do not appear in the DOL&WD data.

Table 2.4
Jobs in Elfin Cove by Major Employer – 2006

Major Employers	Monthly Average Jobs – July	Monthly Average Jobs - January	Annual Average Jobs
Tanaku Lodge	13	0	5
Elfin Cove Fuel*	3	2	3
Elfin Cove Lodge	8	0	3
Cross Sound Marketing	5	1	3
Eagle Charters	8	0	2
The Cove Lodge*	8	0	2
Inner Harbor Lodge	4	0	1

Source: Alaska Department of Labor and Workforce Development, Elfin Cove Fuel, and Cove Lodge, 2007.

*Some employment figures have been changed slightly from DOL&WD figures by company representatives.

Table 2.4 shows the strength of lodges in the Elfin Cove economy among businesses reported to DOL&WD. Thirteen of 19 annual average jobs offered by the top several employers in this list are in the lodge industry. The other six jobs shown in this table are in the utilities and retail industries that support the local populace. Commercial fishing and small self-employed businesses are not captured in these figures. There are 39 individual business licenses registered in the community, although some businesses have more than one business license.

2.9.2 Fish Harvest and Processing

The waters of Cross Sound and Icy Strait near Elfin Cove contain a substantial fishery resource. Commercial fisheries in the general vicinity of Elfin Cove are mostly salmon hand and power troll fisheries with the peak season running from late June through September. Other commercial fisheries include longline fisheries for halibut, sablefish and other groundfish. Since the waters of Glacier Bay National Park were closed to commercial fishing, little shellfish is commercially harvested in the area.

The Southeast Alaska commercial fishing fleet is relatively mobile and the number of boats based in Elfin Cove during the summer fishing season can vary greatly due to the strength and location of the fish runs, regulations regarding fish openings and allowable catch, weather, and other factors. Elfin Cove is located near the heavily traveled passage to and from the Gulf of Alaska, so it is a strategic location for passing fishers to stop.

According to the Alaska Department of Fish and Game (ADF&G), in 2006, 25 commercial fishing vessels were registered to Elfin Cove residents. All of those vessels are equipped with hand or power troll or longline fishing gear, as well as other miscellaneous commercial fishing gear. Table 2.5 presents the numbers of commercial fishing permit and crew license holders who are Elfin Cove residents, as well as pounds of fish landed and gross earnings by those residents from 1999 to 2006. The species caught were crab, halibut, sablefish, salmon and other groundfish. Permit holders may hold more than one permit, so this count does not represent how many commercial fish permits are held by Elfin Cove residents. This table does not indicate where the fish were caught or landed, only that they were caught by Elfin Cove residents.

Table 2.5
Commercial Fishing Activity by Elfin Cove Residents
1999 - 2006

Year	Permit Holders	Licensed Crew	Pounds Landed	Gross Earnings
1999	28	NA	1,277,951	$ 916,922
2000	25	15	876,015	$ 772,009
2001	26	NA	1,207,254	$ 946,693
2002	23	9	791,957	$ 667,379
2003	23	9	997,832	$ 790,656
2004*	26	17	660,844	$ 1,015,692
2005*	26	13	583,330	$ 965,574
2006	24	NA	483,085	NA

Source: Alaska Department of Fish and Game, Commercial Fishery Entry Commission, 2007.

*Data for 2004 and 2005 does not include catch and earnings for sablefish as there were only two resident permit holders in that category so that information is confidential.

Commercial fishers from all areas of Alaska and other states fish in the productive waters near Elfin Cove. In 2006, about 1.8 million pounds of salmon were commercially caught by all fishers in all Area 14A troll fisheries near Elfin Cove. Also in 2006, over 2.6 million pounds of halibut commercially caught in Southeast Alaska by all fishers were landed near Elfin Cove in Pelican, Gustavus, Excursion Inlet, Hoonah, and Juneau.

There are no large onshore fish processors located in Elfin Cove. Fishers in the area generally sell their troll catch to buyers or tenders located near the fishing grounds that are on contract to area processors. For halibut and black cod fisheries, fishers deliver their

catch to nearby processors in Pelican, Gustavus, Excursion Inlet, Hoonah or Juneau. In past years, salmon roe has been landed at Elfin Cove and flown to Juneau for processing.

According to the Alaska Department of Environmental Conservation (DEC), Seafood Processing Section, three processors are currently located in Elfin Cove; one onshore smoker, one shellfish shucker and packer, and one direct marketing fishing vessel. In addition, one mariculture farm is located in the Elfin Cove area.

In the late 1990s, all commercial fisheries were closed in nearby Glacier Bay National Park and a federal buyout program was created for fishers, businesses and communities impacted by the closures. Local area commercial fishers used some of the buyout funds to form Cross Sound Marketing Association, a non-profit corporation formed to stimulate the commercial fishing aspect of Elfin Cove's economy. The Association purchased property that includes a store, laundromat, showers, warehouse, fish-buying scow, rental housing, and tidelands with docking facilities. They also formed a cooperative to market salmon troll caught by area residents. The Association has the potential to play an important role in moving Elfin Cove towards sustainability.

2.9.3 Tourism and Recreation

Tourism and recreation have played a strong role in Elfin Cove's economy in recent years. Ten area lodges offer rooms, meals, tours and charter fishing. A 2005 study by the University of Alaska's Institute of Social and Economic Research reports that Elfin Cove area lodges served about 1,500 clients and earned between $4.5 to $5.2 million in that year. The ADF&G reports 31 charter fishing vessels were licensed to operate from Elfin Cove in 2005 (the latest year for which the information is available), of which 25 were active. In addition, several bed and breakfasts and guest houses are located in the community and surrounding areas. Residents of nearby communities in Southeast Alaska, and even as far away as Whitehorse Canada, travel to Elfin Cove frequently on private pleasure boats. Lodge patrons and other visitors often spend money at shops and stores in the community and visit the local museum.

Several small cruise ships have made Elfin Cove a stop in the past few years. For the 2007 season, three small ships from two cruise lines were scheduled to make 28 stops at Elfin Cove (Cruise Line Agencies of Alaska 2007). The stops are generally only for a few hours, during which time cruise ship passengers patronize stores, gift shops, and local attractions.

2.9.4 Other Economic Sectors

The retail and service businesses in Elfin Cove serve mainly the local residents, although some are also patronized by visitors. Currently Elfin Cove has a grocery store, a liquor store, a restaurant/bar, a small hardware store, a pilot boat business, and a building maintenance business. The CECNPC operates the fuel, electric and water facilities. The government sector includes the U.S. Postal Service and one part time position with ADF&G. Subsistence activities also contribute to the economy of Elfin Cove by providing food and other resources for residents.

2.10 Transportation

Elfin Cove has no streets, no cars, and no road access to other communities. Transportation to and from the community is by air or sea. Scheduled air service is available from Juneau via seaplane from one air carrier and charter service is available from several additional carriers. Goods are delivered on an irregular basis by Juneau-based barge services.

Elfin Cove receives an Essential Air Subsidy from the federal government which reduces the seat fares for the traveler to and from Elfin Cove up to $200 per seat. Aircraft used to travel to and from Elfin Cove are Cessna 180s, 185s, 206s, 207s, and De Havilland Beavers and Otters on amphibious and on straight floats (carrying from 4 to 10 passengers). Occasionally, Cessna Caravans and other aircraft on floats visit the community. One scheduled flight to Juneau is offered per day during winter if the weather allows. According to the carrier offering scheduled service to Elfin Cove, during summer scheduled flights increase to two every day with an additional flight on week days. Charter service is available year-round and is frequent during summer, often bringing lodge patrons to and from Elfin Cove. Long periods of no air service can occur in winter due to weather and other factors.

Table 2.6 presents information on air traffic to and from Elfin Cove from 2003 through 2006. Charter traffic is sometimes reported in this database from the U. S. Bureau of Transportation Statistics, but often it is not. While charter traffic appears to be included in this data for 2003 and 2004, that traffic may not be included in air traffic statistics from 2005 and 2006. Consequently, this information likely under reports actual air traffic to and from Elfin Cove in those years, but it is the best data available.

Table 2.6
Flights to and from Elfin Cove, 2003 to 2006

	2003	2004	2005	2006
To Elfin Cove				
Flights	739	769	339	316
Passengers	1,740	1,902	556	529
Mail (lbs)	46,338	52,098	52,253	48,992
Freight (lbs)	26,188	33,593	31,675	27,513
Load Factor	35.0%	37.7%	30.7%	32.2%
From Elfin Cove				
Flights	761	768	335	316
Passengers	1,705	1,845	521	517
Mail (lbs)	22,413	19,716	21,208	15,807
Freight (lbs)	37,019	71,319	21,067	21,012
Load Factor	33.4%	37.8%	28.6%	29.7%

Source: U. S. Bureau of Transportation Statistics, 2007.

While commercial marine passenger service has never been available to and from Elfin Cove except by charter, the Alaska Marine Highway System has considered the possibility of providing service via passenger-only ferry in conjunction with service between Juneau and Pelican (Cagle 2007). Commercial ocean freight service is available by charter from Juneau by marine cargo transport companies. The vessels generally used for that service are landing craft for beach landings of cargo and equipment. Some vessels also have cranes for delivery of goods to the dock. Efforts by one company to develop scheduled freight service to Elfin Cove have not been successful (Weltzen 2007). Many residents and visitors use personal or business vessels for transportation of people and goods to and from Elfin Cove.

2.11 Utilities

Current community utilities include the fuel distribution system, an electrical system and a water system. Potential utilities that may be provided in the future include sewage disposal, solid waste incineration or disposal, and recycling.

2.11.1 Elfin Cove Fuel Cooperative

The Elfin Cove Fuel Cooperative (ECFC), incorporated in 2000, is housed within the CECNPC. The purpose of the cooperative is to provide heating oil to area residents and marine fuel for residents, lodges, fishers, and visitors. The fuel dock, tanks and distribution system are managed by a CECNPC committee. Paid staff includes the fuel dock manager, summer and winter operator and the bookkeeper.

Facilities include a tank farm consisting of seven large tanks, a fuel dock warehouse, and a fuel dock including a sales office, restroom, tool storage, and oil containment boom storage. The tanks include four 20,000 gallon tanks, two 8,000 gallon tanks and one 5,000 gallon tank. Appendix D contains a 2007 inventory of ECFC facilities.

2.11.2 Electric Generation

The Elfin Cove Utility Commission (ECUC) is responsible for the electric generation system. An advisory board of directors provides direction for the ECUC. Although there is no manager for the ECUC, staff includes a part-time bookkeeper, an operator and a back up operator.

A $1,178,490 grant from the Alaska Energy Authority funded an electrical upgrade in 2007. Three diesel generators provide a combined power output of 347 kW. The generators are housed in a 600 square-foot powerhouse located between the inner and outer harbors. Upgrade of the power distribution system and installation of electricity meters was originally planned as part of this grant, but cost overruns have delayed that upgrade until additional funding can be obtained. Some local businesses and individuals have generators they use as a back up to the community system.

State law includes a provision for subsidizing rural energy costs through the Power Cost Equalization (PCE) program (AS 42.45.100 et seq.). During 2007, electric rates were over $0.53 per KWH before application of the PCE subsidy. The Regulatory Commission of Alaska in the Alaska Department of Commerce, Community and Economic Development manages the program. In 2007, the commission approved a PCE subsidy of $0.2736 per kilowatt hour for non-commercial customers in Elfin Cove. For FY06, Elfin Cove received a total of $26,149 from the PCE program.

2.11.3 Alternative Energy

Residents of Elfin Cove expressed a strong interest in alternative energy in responses to the 2006 community survey and during interviews conducted during the development of this plan. The potential for hydroelectric, tidal power and wind energy is discussed in Section 3.1.

2.11.4 Water system

Two primary systems provide water for the community, one for drinking water and one for other uses. In addition, other privately operated systems supply some residents with water. A spring located above the east side of the community provides the source for the community's drinking water system. The basic system captures water from the spring from two spring boxes which is then piped to a nearby 15,000 gallon tank. A three-inch high-density polyethylene (HDPE) pipe distributes the water to a number of buildings with smaller feeder lines to the remainder of the community. Individual businesses and homeowners must provide their own service connection to the system.

The CECNPC completed a schematic of the water distribution system in 2007 (See Appendix C). In addition, the CECNPC has taken recent action to improve management of the system including institution of a voluntary annual fee of $20.00 for each user.

No filtration or disinfection is required for groundwater systems, but there have been occasions where coliform bacteria have been detected in the water. The source of this intermittent problem has not been determined, but if it persists additional treatment may be required. A 1997 study developed alternatives for improving the drinking water system (Alaska Department of Environmental Conservation 1997).

A non-potable secondary water system with a pond water source is available for uses such as washing down boats. The distribution lines for this system, however, do not service the state docks and all of the lodges. At the time the plan was written, the residents were in the process of repairing and expanding this system.

Two divisions of the DEC address drinking water systems. The Village Safe Water Section of the Division of Water manages a capital project program that offers competitive grants for improvement of water systems. The Drinking Water Section of the Division of Environmental Health regulates public water systems, including Elfin Cove's system. Annual monitoring of nitrates in Elfin Cove is required, and during months when

there are more than 25 residents, typically the months May to September, monthly monitoring of bacteria is mandated.

2.11.5 Solid Waste

There is no community-wide solid waste disposal system. Residents burn their garbage using either individual intertidal burn sites or a shared open burn site located near the main dock in the outer harbor. Ash from the burn sites is either buried or disposed of in marine waters. The shared burn site is not managed, materials are inconsistently sorted, and sometimes improper materials are burned. Prior plans for an incinerator were suspended in 1988 because of implementation of a now defunct local recycling program (Alaska Department of Environmental Conservation 1994). The State of Alaska indicated it would be willing to sell a site on Mike Island to the community for location of an incinerator, but it would not consider leasing the site (Alaska Department of Natural Resources 1997).

It appears that some non-burnable waste may be disposed of in marine waters, and some is brought to Juneau or Gustavus on an individual basis. Appliances and other large items are occasionally back-hauled to Juneau. No suitable site has been identified for a landfill. The additional volume of solid waste produced in summer puts a strain on the community's solid waste management capacity, and Elfin Cove is unable to accommodate solid waste disposal needs of visitors.

While there is no current community-wide recycling, a former program was recognized by the Alaska Department of Environmental Conservation for its innovative approach (Alaska Department of Environmental Conservation 1994, Dowe 1992). The previous program involved back hauling of aluminum, tin, glass, non-ferrous materials, and trolling wire. The materials were transported to Seattle twice a year, and the recycling company paid the shipping fee. Presently, some people bring their recyclables to Gustavus or Juneau.

2.11.6 Sewage

There is no community-wide sewer system in Elfin Cove, and sewage management consists of individual straight pipe discharge or in some cases septic tanks with outfalls into both the outer and inner harbors. A brief assessment of sewage disposal was included in the 1971 community planning study (Snodgrass 1971), and an in-depth analysis of sewage disposal and potential community sewage systems was completed in 1997 (Alaska Department of Environmental Conservation 1997).

Discharges into the inner cove are not diluted as effectively as discharges into the outer cove. Water sampling in 1997 indicated that effluent from the outfalls rise to the surface and that the water is most polluted during low tide.

In 2007, the CECNPC completed an inventory of sewage disposal systems. Of the 136 toilets located in the community, nine empty into two separate treatment tanks, 91 empty

into 23 separate septic tanks, and 36 empty directly into marine waters through 17 separate outfalls (See Appendix C).

2.12 Community Facilities

Publicly-owned facilities in Elfin Cove include docks, boardwalks and community buildings. The docks and boardwalks are owned by the State of Alaska. Community buildings owned by the CECNPC include a multi-purpose community building, a community shop/warehouse, a fire hall, the powerhouse, and a fuel dock with associated buildings and equipment.

2.12.1 Docks

Elfin Cove has two harbors, one on the outer edge outside the community and one inside harbor that is surrounded by the community. The public docks are owned by the State of Alaska but are not actively managed. The outer harbor has five docks. The main dock is a 10 ft. by 212 ft. float with a 16 ft. by 24 ft. seaplane float at the end. Docking capacity at the outer harbor is about 18 boats (DOT&PF 1995). A dock containing the fuel facility is also located at the outer harbor, and three private docks serve lodges located there.

The inner harbor has a 10 ft. by 187 ft. main float with two fingers. The harbor has a docking capacity of about 47 boats. The inner harbor also has a 20 ft. by 103 ft. grid (DOT&PF 1995). Neither harbor has trash collection nor sewage pump-out facilities, but water and limited power are available on the inner harbor dock. Eight private floats are also located at the inner harbor and outer harbors.

2.12.2 Community Buildings

The CECNPC owns several buildings including a community building, a community shop with storage lockers, a fire hall for storage of emergency equipment, a fuel dock and three associated buildings, and a powerhouse. The community building was originally built mainly as a school, and it now houses a gymnasium, a small meeting room/library, an office for community business, a small clinic room, and men's and women's restrooms. Space in the community building is rented to the U. S. Post Office and the Elfin Cove Museum. A public library building and a playground are located near the outer harbor on MHTA lands. A 2007 survey of Elfin Cove community buildings is attached as Appendix D.

2.12.3 Boardwalks

Access to areas within the community is via boardwalk, trail or boat. There are no streets or vehicle access in Elfin Cove. The boardwalks are owned by the State of Alaska and maintained by the community primarily on a volunteer basis with some major repairs and exceptional maintenance being paid labor or grant work. The existing length of boardwalk and trail system in the community is estimated to be between .75 and 1.0 miles (Wrobel 2007).

2.13 Education, Health, Communications, Housing and Public Safety

The public school in Elfin Cove closed in 1998 when the number of children enrolled dropped below the state-mandated threshold of 10 students. There are currently no children of school age residing in Elfin Cove. In the past, residents with school age children have spent the school year in nearby communities so their children could attend public school.

Elfin Cove does not have a medical clinic, but Elfin Cove Emergency Medical Services (EMS) provides emergency response in the community on a volunteer basis. The Elfin Cove EMS is part of the Southeast Region EMS Council, Inc. based in Sitka and receives funding for equipment and training opportunities through this nonprofit corporation. Residents generally travel to Juneau or Sitka for routine health care.

The Elfin Cove EMS has one trained EMT I who also trains others in CPR and first aid. About 20 people in Elfin Cove have had some training and three currently volunteer for the EMS as first responders. Elfin Cove has a small clinic room in the community building with first aid kits and a defibrillator. Funding for a second defibrillator was approved in 2007. Medical evacuations of serious cases occur via regular air carriers or via Coast Guard helicopter from nearby Air Base Sitka. There is no formal helicopter landing pad. Helicopters land on the beach at the outer harbor, or can hover and lower a basket for the patient (Perkins 2007). Neither of these options provides adequate emergency evacuation facilities.

The Elfin Cove Volunteer Fire Department is registered with the State of Alaska. They have eight volunteers and limited fire fighting and safety equipment. The equipment is kept in a building near the community shop. Equipment includes one water pump, about 500 to 600 ft. of hoses, two large and several small fire extinguishers, and protective clothing handed down from larger departments in the region. The department recently received a $5,000 grant from a $6,500 request, and will acquire a new water pump with the funds. Continued efforts are being made to upgrade equipment and improve the training of volunteers.

Elfin Cove receives local telephone service from ACS of the Northland and long distance telephone service from AT&T Alascom. A residential phone line costs $14.50 per month plus state and federal taxes and surcharges for local service. Long distance service costs vary by service package. Internet service is available through dialup and satellite.

Elfin Cove has a U.S. Post Office and the Postal Service has a contract with a regional air carrier for mail delivery.

Table 2.7 presents information on housing in Elfin Cove from the 2000 Census and from the Sperling's Best Places webpage. In 2000, the official U.S. Census population of the Cove was 32 residents. In that year there were 35 housing units, 15 of which were occupied year around. Another ten units were vacant due to seasonal use and ten were

vacant year around. Thirteen housing units were owner-occupied and two were rented. The average household size in Elfin Cove in 2000 was 2.13 persons.

Table 2.7
Elfin Cove Housing Characteristics - 2000 Census

Category	Data	Year	Source
Total Housing Units	35	2000	Census
Owner-occupied units	13	2000	Census
Rental units	2	2000	Census
Average lot size			
Median Home Value	$277,700	2005	Sperling's
Median Home Age	23 years	2005	Sperling's
Vacancy rate	57%	2000	Census
Heating			
Heat with electricity	0.0%	2000	Census
Heat with Fuel Oil	83.3%	2000	Census
Heat with wood	16.7%	2000	Census
All Other	0.0%	2000	Census
Structures			
Single Family Detached	29	2000	Census
Single Family Attached	6	2000	Census
Lack of Complete Plumbing	16.7%	2000	Census
Lack of Complete Kitchen	16.7%	2000	Census

Sources: U.S. Census Bureau, 2000, and Sperling's Best Places website (www.bestplaces.net), 2007.

Table 2.7 shows that as of 2005, about 16% of the housing stock was less than ten years old, 13% was between 10 and 15 years old, 27% is between 15 and 25 years old, 19% was between 25 and 35 years old, and 27% is 45 yrs. old or older.

There is no Village Public Safety Officer (VPSO) in Elfin Cove as there are in many other rural Alaska communities. Law enforcement is typically provided by the Alaska State Troopers who must arrive by floatplane or boat.

2.14 Community Leadership and Organization

Elfin Cove is not an incorporated local government. In 1981, residents received approval for the incorporation of the CECNPC to receive and administer state grant funds and to provide community services to all residents of the community. The 2006 CECNPC bylaws state that the corporation may buy and sell electricity and own land.

Membership in the nonprofit corporation is open to anyone who qualifies to be a voter in Alaska with an address in Elfin Cove and a domicile in Elfin Cove, Port Althorp, Inian Island or Idaho Inlet. Seasonal residents are also allowed membership.

The CECNPC conducts regular meetings using the town meeting concept common to New England communities, where community members vote on most decisions of importance. A seven-person board of directors is elected by the membership, and board officers include a chair, vice-chair, secretary, and treasurer. The treasurer is responsible for overall finances of the corporation, but different people maintain records for individual committees that collect revenue.

State of Alaska statutes assign responsibility to the board of directors for the operations of a nonprofit corporation (AS 10.20.081). According the State of Alaska, "board members are legally responsible for the management of the association's finances" (Alaska Department of Community and Economic Development 2003, p. 9).

The operations of the CECNPC are managed by a committee structure. The organization chart for the nonprofit corporation lists the following entities under the CECNPC Board of Directors:

- Fire Department,
- Museum,
- Elfin Cove Utilities Commission,
- Shop Committee,
- Elfin Cove Fuel Cooperative,
- Elfin Cove Water,
- Building Operations Committee, and
- Emergency Medical Services.

The committees have a certain amount of discretion to conduct their duties, but most important decisions are made by the membership of the organization.

The CECNPC received substantial funds from the Glacier Bay Commercial Fishing Compensation Plan. Additional funding is obtained through grants for specific projects, through user fees and through State of Alaska revenue sharing. As a result of elimination of the former long-term revenue sharing program, it is uncertain from year-to-year whether Elfin Cove will receive state assistance. During FY 2008, the Legislature appropriated $26,326 to Elfin Cove under a temporary revenue sharing program called the Municipal Energy Assistance Program.

CHAPTER 3: GOALS AND STRATEGIES

This chapter presents the goals and strategies that make up the community plan. Community goals were identified from the DCCED community survey, at the May 2007 community scoping meeting for this plan and at the July 2007 meeting to review the draft plan. For each goal, the challenges involved in meeting the goals are outlined followed by strategies to overcome those challenges and to take advantage of upcoming opportunities to meet the community's goals. The goals below are listed in priority order as determined by the membership.

3.1 Alternative Energy

Goal: Reduce the community's dependence on fossil fuels by developing alternative energy resources.

Goal: Reduce the cost of energy in the community by developing lower cost, alternative energy sources.

The community of Elfin Cove has a great interest in exploring options for alternative energy. This section begins with a brief discussion of potential alternative energy sources followed by a list of challenges and strategies. There is strong potential for alternative energy from hydroelectric and tidal power, and there may be some potential for wind power.

3.1.1 Hydroelectric Potential

The over 50 hydroelectric power plants across Alaska provide 14% of its energy. Hydroelectric power supplemented some of Elfin Cove's energy production in the past, and the area's water resources provide a potential for future energy production. Formerly, a Pelton wheel was used to supplement diesel power generation, but this system is no longer in use. Remnants of the Pelton wheel are currently located near a community library and play ground. A small-scale hydroelectric generation system is currently in use on the Inian Islands.

The Alaska Power Authority completed a reconnaissance study of hydroelectric potential in Elfin Cove in 1983 and a supplement to the study in 1984 (Alaska Power Administration 1983, 1984). The study concluded that a 20 – 60 kW micro-hydro system would be the most economical alternative and that enough power could be generated to supply Elfin Cove's near-term energy needs (in 1984) even during periods of low water flow. The proposed system involved diversion of Crooked Creek to Jim's Lake which drains into Port Althorp. Such a system would need supplemental diesel generation for peak use. The study found that due to low water flow periods, other alternative sites would not be feasible including Roy's Creek, Joe's Creek, or Ernie's Creek. In 1985, the construction costs for the Jim's Lake hydroelectric system, including construction of the generation system and distribution system, were estimated to be $400,000. This cost

estimate assumed that local labor would be used. The study estimated that annual operations costs would be $10,000.

Before a hydroelectric system would be developed, it is likely that funding organizations would require additional reconnaissance to ensure the system would be cost effective and meet current projected future energy needs. The 1984 study recommended that stream gauges be installed at both Crooked Creek and Jim's Lake. An additional review of potential environmental impacts would likely be necessary, although an initial evaluation found that the water bodies were not navigable and did not contain resident fish.

Development of the hydroelectric power project will require state and federal agency permits and approvals, and the specific requirements will be determined during the application process. The FERC regulates hydroelectric facilities, but because of the small size of a proposed project, an exemption for FERC permitting may be possible. Other permits and review processes may be required including an Army Corps of Engineers 404 permit, a USDA, Forest Service special use permit, an environmental assessment, a DNR water rights permit, an ADF&G fish habitat permit, and an Alaska Coastal Management Program consistency determination.

3.1.2 Ocean Energy

The term "ocean energy" includes production of renewable energy from waves, tides, currents, offshore wind, salinity gradients, and thermal gradients. Worldwide attention has been given to ocean energy production in recent years, and Portugal and the United Kingdom have established policies to support the marine energy industry (EPRI 2005). A description of ocean energy organizations and websites is included in Appendix E.

The Cross Sound and Icy Strait areas near Elfin Cove have exceptional potential for development of tidal power. The area from the Inian Islands to Lemesurier Island is currently being considered for investigation by the Alaska Energy Authority. Initial evaluation of four sites near Elfin Cove was completed in 2006 including the North Inian Pass, South Inian Pass, Lemesurier Island, and South Passage (EPRI 2006). The Alaska Tidal Energy Company has filed for permits to study the feasibility of developing tidal power in this area (Straube 2007). A tidal power project in this area could supply the region's energy needs with enough power in excess for export to British Columbia and the Pacific Northwest over a proposed Alaska-BC grid intertie (EPRI 2006).

The Alaska Tidal Energy Company, a subsidiary of Oceana Energy Company, received a preliminary permit in March 2007 from FERC to study the feasibility of the Icy Straits tidal power project. The application to FERC includes a description of the proposed project (TRC Environmental Corporation 2006). Power would be generated from devices located from 20 feet to more than 100 feet deep. The specific type of power generation device has not been determined due to ongoing research. It is expected, however, that the device would consist of rotating propeller blades between 20 and 50 feet wide. A generator would provide between 500 kilowatts and two megawatts of electricity. The exact location of an onshore tie in has not been determined, but the application describes a proposed landfall for the transmission line along the shoreline of Gustavus.

The Icy Straits project involves a two-phased study plan. The first phase involves surveys of the sea bottom, core samples at anchoring sites and current studies. The second phase involves additional benthic studies that may include use of side-scan sonar and current meters. Additional studies may be required during the development of an expected environmental impact statement.

3.1.3 Wind Energy

A detailed assessment of the wind energy potential for has not been developed in Elfin Cove, but wind power is not likely to be able to compete with hydroelectric power generation (Alaska Power Authority 1983). A 1986 study categorized the general area as a Class Three resource which indicates wind power generation might be possible, but this study did not reference Elfin Cove specifically (Elliot et al. 1986). While wind power is economic in some areas of Alaska, it would be necessary to conduct a site-specific assessment to determine whether it would be a feasible alternative for supplementing other energy systems. The 1984 energy study recommended additional wind monitoring along the ridge between the inner harbor and Port Althorp to determine if wind power generation would be feasible.

3.1.4 Solar Power

Active solar energy systems are not likely to be feasible for Elfin Cove due to the cloud cover and short daylight hours during winter months.

3.1.5 Geothermal Power

No geothermal resources have been identified at Elfin Cove, but there are six thermal springs and one thermal well on Chichagof Island located within 60 miles of the community (Alaska Department of Natural Resources 1983). An extensive survey of geothermal resources has not been conducted in Alaska, including the area around Elfin Cove. Until recently, geothermal power generation was too expensive for application in Alaska due to the high costs of the initial infrastructure and need for high temperatures. During 2006, however, the first low-temperature geothermal power generation system in the world was developed at Chena Hot Springs located north of Fairbanks.

3.1.6 Other Potential Alternative Energy Applications

Recent increases in the costs of petroleum products have led to new interest in alternative energy. In addition to the sources of alternative energy discussed above, other sources of power are being investigated in Alaska including fuel cells, battery energy storage systems, coal bed methane, biomass, and hydrogen. Fuel cell technologies are used in Alaska on an experimental basis including solid oxide fuel cells and phosphoric acid fuel cells. Fairbanks uses a battery energy storage system (BESS), and Metlakatla uses a smaller BESS application to supplement its 3.5 megawatt hydroelectric system. Coal bed methane typically occurs within 3,000 feet of the surface, and it is being investigated as a source of energy in a number of areas of Alaska. A number of applications of biomass

technology occur throughout Alaska including a wood chip burning facility in Craig and a fish oil/diesel power system in Unalaska. Hydrogen power has been used successfully in Iceland. Applications in Alaska include use of electrolysis to create hydrogen for cooling the generating units at the Beluga power plant, a research project at the University of Alaska involving operation of an electrolysis plant, and an ongoing study at the Arctic Energy Technology Development Laboratory to investigate the use of hydrogen power for rural villages.

Challenges:

- Funding will be required to update the assessment for hydroelectric power and to construct a system if hydroelectric power generation is feasible.
- The Cross Sound area is one of a number of tidal power sites currently under consideration in Alaska. Feasibility of the site to provide power to Elfin Cove, to the greater region, and for export will require additional study and analysis.
- While tidal power potential near Elfin Cove is excellent, it has not been determined whether it would be feasible to transmit power to Elfin Cove because if its small population.
- Funding will be needed to determine whether wind power is a viable alternative to supplement the energy needs of the community. The forest cover and sheltered location of Elfin Cove may reduce the feasibility of wind power generation.

Strategies:

- Seek funding to supplement the 1983 and 1984 hydroelectric studies to determine current feasibility for hydroelectric power generation. Funding could be available from the Denali Commission's Energy Program, the USDA Rural Development's Electric Program, the Alaska Energy Authority Community Assistance Program, and possibly State of Alaska capital grants.
- Encourage use of passive solar energy techniques in building construction (Seifert 2005).
- Work with the Alaska Energy Authority and the Alaska Tidal Energy Company to develop tidal power in Cross Sound with a tie in to Elfin Cove's power system.
- Promote siting of facilities in Elfin Cove for alternative energy research.
- Invite company representatives investigating tidal power to visit the community including the Alaska Tidal Energy Company.
- Offer Elfin Cove as a staging site for work on nearby tidal energy projects.
- Seek funding for an analysis of wind energy potential in Elfin Cove. Funding could be available from the Denali Commission's Energy Program, USDA Rural Development's Electric Program, the Alaska Energy Authority Community Assistance Program, and possibly State of Alaska capital grants.
- Contact other Alaska communities with wind generators to determine if their experience would apply to Elfin Cove.
- Support current legislation for alternative energy grant programs.

3.2 Quality of Life and Environment

Goal: Maintain the quality of life in Elfin Cove including the small town atmosphere, community services, and environmental quality.

Elfin Cove residents place a high value on their quality of life. A clean environment, close access to fishing and hunting, a lack of government interference, and the slow pace of life all contribute to the local quality of life. While many of the strategies for other sections also relate to quality of life, this issue is listed separately because of its importance to the community.

Challenges:

- Economic development can conflict with quality of life.
- Organized tours from cruise ships disrupt privacy.
- Burning trash degrades air quality in the community.
- There is no recycling program for community residents.
- The lack of sewage treatment results in localized water quality problems.
- The water system is not reliable during the winter.
- High energy costs burden residents.
- There is a lack of adequate space for community meetings, pot lucks and other functions.
- Few young people living in the community.
- Some report that the community is not as cohesive as in years past.

Strategies:

- Implement strategies listed in other sections to improve air and water quality, provide a reliable water delivery system, build a community-wide sewage treatment facility, develop a recycling program, reduce energy costs, and encourage families to move to the community.
- Develop alternatives for a community meeting room big enough to accommodate large groups.
- Consider use of a professional facilitator or mediator to recommend effective methods for reaching group decisions.
- Participate in state and federal planning and permitting processes to ensure development minimizes effects to the environment and quality of life.
- Request permitting agencies to require that applicants for development projects complete archaeological surveys.
- Develop a voluntary beautification program including an annual clean up to improve the visual appearance of the community.

3.3 Sustainable Economy

Goal: Provide a variety of year-round and seasonal business and employment opportunities to maintain a sustainable population without sacrificing the quality of life.

Elfin Cove has three main business sectors that contribute to its economy – commercial fishing and fish processing, fishing lodges and associated charter fishing activity, and other tourism, including independent travelers and small cruise ship visits. Elfin Cove also has a small support industry which offers goods and services to its residents.

3.3.1 Commercial Fishing and Fish Processing

The waters near Elfin Cove contain a substantial fishery resource. The future of commercial fish harvest in the Elfin Cove area seems bright because of the proximity and size of the resource and because the harbor seems popular with area fishers. Fishers using Elfin Cove as a port often patronize local businesses. Localized fish processing activity creates employment, income, and potential for support business development within the community. However, the lack of fish processing capacity and freight transportation options in the community tends to limit the ability to capture value from the nearby resource.

The commercial fishing industry near Elfin Cove presents the potential for tax revenues to be gained by the community. A tremendous fishery resource exists within the waters surrounding Elfin Cove and much of the economic benefit of that resource is not being realized in the community. A brief discussion and rough estimate of potential revenues from local fisheries landing taxes and State of Alaska Fisheries Business Taxes are presented below. In order for tax revenues from these programs to be realized, two things must happen. First, Elfin Cove would need to organize a local government or facilitate changes in legislation governing tax revenues. Second, fish processing businesses would need to be developed within the Elfin Cove municipal boundary.

In 2006, 1.8 million lbs. of salmon was commercially troll caught in Area 14A near Elfin Cove. In the same year, 2.6 million lbs. of halibut was landed at communities close to Elfin Cove. Using a conservative average exvessel price of $1.50 per lb. for salmon and $3.50 per lb. for halibut, at least $11.8 million in fish value was either caught or landed near Elfin Cove in 2006. That volume of fish at a municipal raw fish tax of 2% would bring about $236,000 in revenue.

Municipal status would also allow Elfin Cove to share in a State of Alaska-imposed Fishery Business Tax on processors. Fishery Business Taxes are a percentage of price paid to the fisher, and rates vary by type of processor: 5% for floating processors, 4.5% for salmon cannery, and 3% for shore-based processors. The State of Alaska shares the tax revenue 50/50 with the municipality where the fish is processed. Revenue from this tax is at least $150,000 per $1,000,000 in exvessel value of fish processed within municipal boundaries.

Challenges:

- Fish caught commercially near the cove is purchased by buyers and tenders on contract with large area processors. As there is little processing activity in Elfin Cove, the community does not take full advantage of the resource by adding value to it before it leaves Elfin Cove.

- Because Elfin Cove does not have an organized local government, local fishery taxes cannot be implemented and state taxes cannot be shared with the community.
- The development of lodges in recent years has brought a large charter fishing element to the community. The recent allocation issues between the commercial and charter fleets are important in this community, and these issues have potential for creating conflict.
- The use of Elfin Cove as a port for the commercial fleet depends on many variables such as strength of fish runs, fishery openings, weather, and many other factors. Consequently, use of the Cove by the fleet is not consistent from year to year.
- Heavy use of Elfin Cove by the commercial fishing fleet can stress the community's infrastructure and the available goods and services.
- Some commercial fishers resent recreational visitors in Elfin Cove, creating the potential for conflict in the community.
- Transportation of fresh and processed fish from Elfin Cove is expensive and inefficient. Fresh fish brings high prices, but getting fresh fish to market generally requires air transportation, the high price of which narrows the profit margin. No scheduled marine transportation service to and from the community is available to move fresh or processed fish.

Strategies:

- Educate the commercial fleet about the value of visitors to the community and foster good relations between those industries.
- Encourage continued and expanded value-added fish processing in Elfin Cove.
- Investigate opportunities to process sport-caught fish locally. While sport-caught fish cannot be sold, individual catch can be custom processed. Also explore the practice of trading sport-caught fresh fish for locally processed fish as occurs in other Alaska communities.
- Investigate where user fees might be charged for use of docks, local water, restrooms and other services and facilities.
- Encourage development and expansion of businesses that support commercial fishers visiting Elfin Cove.
- Continue development of a Community Quota Entities (CQE) program in Elfin Cove.
- Explore organizing the community into a municipal government so that it can charge a fish landing tax and can receive a share of state fisheries business tax revenues from fish processed in the community.
- A freight dock is being developed in nearby Gustavus, a community with jet service. That dock opens the potential for Icy Strait and Cross Sound communities to improve transportation of fish to market. Develop local transport of goods to and from Gustavus once the dock is built to improve transportation connections for fish products.
- Support development of a cold storage facility at the Gustavus airport to facilitate shipment of fish from Elfin Cove to market.
- Southeast Conference is running a pilot project to increase the capacity for air transportation for fresh fish from several regional hub airports. Work with that group to expand its outreach to small communities such as Elfin Cove, or find

some cost effective way to transport Elfin Cove fresh fish to centers where jet service is available.
- Explore cost-efficient methods of transporting shellfish from Elfin Cove to market.
- Market commercial fishing experiences to visitors.
- Improve and expand commercial fisheries infrastructure, such as improving docks and installing an ice machine.
- Explore ways to gain and maintain local control of the waters and fishery resources surrounding Elfin Cove.

3.3.2 Tourism

The potential for tourism development in the area is great. People desire to visit Elfin Cove because of the scenic views, abundant fishing opportunities, and the uniqueness of the community. Tourism in the Elfin Cove area has manifested into three distinct areas. Many fishing lodges host overnight visitors who are generally flown in and out of the community and often spend their days fishing on charter boats in the surrounding waters. Small cruise ships stop for several hours at Elfin Cove and can deliver 100 or more passengers at a time to the community. In addition, independent visitors, often on private pleasure boats, visit the community individually or in small groups and may stay for a few hours or a few days. As these three types of tourism are fundamentally different, challenges and strategies for each are presented separately below. Some challenges and strategies are listed under more than one type of tourism because they relate to more than one type.

Lodges
Elfin Cove has ten active lodges located in or near the community that host overnight visitors and offer charter fishing excursions during the summer season. These lodges are a strong economic boon to the community and the future of this sector is bright. Lodges offer employment for community members and their clients often purchase local goods and services. Often lodge owners take active roles in the community, such as volunteering their services and providing funds for community services and activities. The presence of lodges opens up opportunities for business development within the community.

Challenges:
- The recent allocation issues between the commercial and charter fishing fleets are important in the community, and these issues have potential for creating conflict.
- As lodges have developed the available infrastructure has expanded to accommodate their activity. Summer demand for utilities and wear and tear on infrastructure such as docks and boardwalks is far greater than in winter, when the population drops to between 20 and 30 residents. There is no mechanism in place for user fees to be apportioned to users by amount of use.
- Maintenance of lodges and their utility connections during harsh winters is sometimes challenging for the small winter population.

- Because few goods and services are available locally, lodge owners must go outside the community to obtain most goods and services. Consequently, the added value to the economy of locally offered goods and services is forgone.
- Some lodges tend to use the drinking water system to wash off their fishing boats rather than the secondary, non-potable water system.
- Conflicts have arisen about parking of charter boats on prime dock space.
- Transportation of lodge clients and goods to and from the community is expensive and sometimes unreliable. Shipment of lodge clients' fresh caught fish is especially challenging.

Strategies:

- Educate the residents about the value to the economy of lodges in Elfin Cove. Encourage residents to welcome visitors.
- Encourage lodges to work together to cooperate with commercial fishers and processors. For example, lodges could purchase commercial caught fish for clients when charter caught fish are not available, and other cross marketing opportunities could be explored.
- Explore local business development to provide goods and services currently obtained outside the community or foregone by lodges – possibly work that could carry into winter (e.g., fishing reel repair and maintenance and fish processing and shipping).
- Explore ways to assist with winter maintenance of infrastructure used by lodges, such as development of a maintenance fund or hiring winter caretakers.
- Encourage lodge owners to use non-potable water for boat washing.
- Explore development of a long-term mechanism by which infrastructure use is somehow compensated for by the volume of use. Consider adoption of a voluntary fee per room to compensate for lodge employees' and visitors' impact on the community infrastructure. Investigate where user fees might be charged for use of docks, restrooms, and other facilities and services.
- Explore ways to improve shipment of lodge clients, goods and fish, possibly through airline coordination and/or development of a freight forwarding business.
- Explore development of a central marketplace for the sale of local arts and crafts.
- Consider increasing the fee to visit the Elfin Cove museum.
- Develop a central area for visitor information.

Small Cruise Ships

Several small cruise ships carrying 100 or more passengers stop at Elfin Cove each year. Passengers on the ships disembark to visit the community and visits can last for several hours. Passengers walk around the community and partake of its unique atmosphere, often spending money at local businesses. The potential exists for business development in Elfin Cove that can capture value from these visits.

Challenges:

- Some community residents do not welcome cruise ships in the community and they have put up signs asking them to leave. Consequently, fewer ships are stopping in the community this year.
- The infrastructure and utilities (boardwalks, docks, water, sewer, electric, solid waste) do not have excess capacity to service increased numbers of visitors.

- Few retail and service businesses are available in Elfin Cove to receive income from visitors. Added value to the community from visits is not being realized.
- Because of organizational structure of the community and management of utilities and facilities, there are few opportunities to impose user fees on visitors to compensate for their use of facilities and utilities and for general impacts on the community.

Strategies:

- Educate cruise lines and their passengers about their impacts to the community, and how to minimize those impacts, such as keeping groups small so as not to congest the boardwalk and to respect community residents' property and values. Some progress has been made in this area, but more can occur. Continue publication of a brochure targeting tourism impacts on the community.
- Educate the community about the value and potential of small cruise ship visits to the economy. Encourage residents to welcome visitors.
- Encourage start up of small businesses in the community offering goods and services to cruise ship passengers.
- Consider increasing the fee to visit the Elfin Cove museum.
- Investigate where user fees might be charged for use of docks, restrooms, and other facilities and services.
- Create a tourism marketing cooperative and develop a plan to encourage more visitation by cruise ships and increased added value from each visit to Elfin Cove. Contact small cruise lines that traverse Southeast Alaska and encourage stops at Elfin Cove.
- Develop a central area for visitor information.

Independent Visitors

Residents of Southeast Alaska and other nearby areas stop at Elfin Cove on pleasure trips. Some visitors fly into and out of the area, but many arrive on private boats. Residents of Northern British Columbia and Yukon Territory, Canada moor pleasure boats in Haines and Skagway, and Elfin Cove is a popular place for those boaters to visit. Sometimes large pleasure boats from outside of Alaska stop at Elfin Cove. Potential exists for local development of small businesses offering goods and services to these visitors.

Challenges:

- Some community residents do not welcome independent visitors in the community.
- The infrastructure and utilities (boardwalks, docks, water, sewer, electric, solid waste) do not have excess capacity to service increased numbers of visitors.
- Few retail and service businesses are available in Elfin Cove to receive income from visitors. Added value to the community from visits is not being realized.
- Because of the organizational structure of the community and the management of utilities and facilities, there are few opportunities to impose user fees on visitors to compensate for their use of facilities and utilities and for general impacts on the community.

Strategies:

- Educate independent visitors about their impacts on the community, and how to minimize those impacts, and to respect community residents' property and values. Some progress has been made in this area, but more can occur. Continue publication of a brochure targeting tourism impacts on the community.
- Educate the community about the value and potential of independent visitors to the economy. Encourage residents to welcome visitors.
- Encourage start up of small businesses in the community offering goods and services to independent visitors.
- Consider increasing the fee to visit the Elfin Cove museum.
- Investigate where user fees might be charged for use of docks, restrooms, and other facilities and services.
- Create a tourism marketing cooperative to encourage more visitation and increased added value from each visit to Elfin Cove. Develop a marketing plan for Elfin Cove to encourage visits from independent travelers. Possibly offer transportation/lodging/fishing/tour packages.
    - Market Elfin Cove to nearby communities for weekend getaways.
    - Market Elfin Cove to Yukon Territory and northern British Columbia, Canada for promotions.
- Develop a central area for visitor information.
- Consider hiring a harbormaster to manage visiting boats if a dock management agreement with DOT&PF can be implemented.

3.3.3 Other Economic Activity

Elfin Cove has little economic activity other than commercial fishing, tourism and recreation. Opportunities are available to add value to nearby resources and to offer more goods and services locally that are now imported.

Challenges:

- The high cost of utilities and lack of goods and services available locally is a deterrent to economic activity.
- The high cost of transportation for passengers and goods to and from the community is a deterrent to economic activity.
- The lack of capital to start a business and the lack of knowledge to develop business plans can deter residents from looking into business development.
- Community conflicts may keep community members from working together to identify and facilitate economic goals.

Strategies:

- Investigate training and funding for business development in the community. Training and assistance for developing business plans are available through the DCCED, the Juneau Economic Development Council (JEDC) and other agencies.
- Work with lodge owners to see what goods and services could be made available locally to support their businesses.
- Investigate potential new economic opportunities.

- Work with the JEDC's Springboard program to see if new technologies might be helpful with economic development in Elfin Cove.
- Investigate opportunities for call centers or other communication-based industry development in the community..
- Work with Southeast Conference, JEDC, DCCED and other agencies to learn about and develop economic opportunities.
- Improve and lower the cost of infrastructure, utilities and transportation to encourage economic development.

3.4 Transportation

Goal: Expand frequency of freight delivery and passenger air services.

Transportation connections to Elfin Cove are by aircraft or boat. Passengers, freight and mail are transported via scheduled and chartered floatplane services. Small marine barge charter service for freight and equipment is available from several small carriers in Juneau. Elfin Cove does not receive public ferry service.

While scheduled barge service is not currently available in Elfin Cove, one freight provider has tried to develop this service in the past. A minimum guaranteed poundage would likely be needed to ensure service, and this effort will take community cooperation and coordination to meet that minimum. Scheduled service would generally be less expensive than charter service, and it will be substantially less expensive than air freight.

Challenges:

- Elfin Cove receives an Essential Air Service subsidy of up to $200.00 per passenger seat on scheduled air service. That federal subsidy program is being re-evaluated and could be scaled back or canceled. If that occurs, the costs of air access to Elfin Cove will increase dramatically.
- Air carrier costs of insurance, fuel and labor continue to rise and consolidation in the industry continues. This process will result in fewer carriers with higher costs, and likely higher fares.
- The load factor for flights to Elfin Cove has ranged from 31% to 38% between 2003 and 2006, and the load factor for flights from Elfin Cove has ranged from 28% to 38% over the same time period. Since the flights are far from full it is not likely that additional flights will be added. Lower load factors increase air carriers costs, which may then be passed on to the passengers and shippers.
- Air transportation of fish, either commercially or charter caught, is cost prohibitive. While fresh fish bring a higher market value the factored in higher cost of air transportation negates the higher price.
- U. S. mail is transported via floatplane as a whistle stop so mail delivery is not on a regular schedule.
- Scheduled marine transportation of goods is not available.
- Freight barge charter service is expensive.
- Prior to improvement of electrical generation, propane was often used to power some appliances such as stoves in the community. Transporting propane into Elfin

Cove is hazardous and expensive. The community has expressed a need for development of a freight and propane pier.

- Large freight items and equipment are currently landed on the beach at outer harbor and the landing area has been scarred up from such landings. A freight dock in deep water in outer harbor would improve freight and fuel landings at Elfin Cove.
- No public ferry service is available or planned for Elfin Cove.
- The Federal Aviation Administration will not provide funds for upgrade and maintenance of a seaplane float unless it is used only as a seaplane float. The float in Elfin Cove also accommodates boats.
- There is no safe place for helicopters to land for medical evacuations.

Strategies:

- Work with the Alaska Marine Highway System and the Marine Transportation Advisory Board to include Elfin Cove as a whistle stop for contract passenger-only ferry service to Pelican.
- Work with freight providers to facilitate regularly scheduled barge service in conjunction with similar service to Pelican.
- Work with the federal government through Alaska's congressional delegation to continue the federal Essential Air Service subsidies and invite the delegation to visit Elfin Cove.
- Secure funding for upkeep and improvement of the seaplane float. Work with DOT&PF and possibly Federal Aviation Administration to do so.
- Secure funding for construction of a deep water freight and fuel dock. The State of Alaska has developed a fund for dock projects, and will be supplying monies for that fund in the future.
- Watch the progress of the anticipated Ground Effects Vehicle (hovercraft) passenger service between Juneau and Hoonah. If that service is successful and cost effective, consider approaching the company offering that service about stops in Elfin Cove.
- A new dock and boat launch is being planned for Gustavus. Since Gustavus has a seasonal jet-serviced airport, residents and visitors could fly in or out of Gustavus and be transported to and from Elfin Cove by personal or company boat. Develop a shuttle service for the Elfin Cove – Gustavus route. Freight and fish could also be transported via Gustavus.
- Find a helicopter landing site and work with Federal Aviation Administration and DOT&PF to develop it.

3.5 Utilities

Goal: Provide affordable and reliable utilities.

The challenges and proposed strategies for each utility are discussed in this section including the ECFC, ECUC, the water system, solid waste disposal, and sewage disposal.

3.5.1 Elfin Cove Fuel Cooperative (ECFC)

The ECFC is part of the CECNPC, and it is managed by an advisory board of directors.

Challenges:

- The increased cost of petroleum products in recent years has led to an increase in fuel costs in power generation.
- There is no redundancy for facility operation and management, and system operation is dependent on one person.

Strategies:

- Evaluate whether this utility should be privatized.
- Train other people to provide backup for management of the utility.
- Investigate whether structure as a cooperative is still necessary or if the cooperative may be restructured to be part of the CECNPC.

3.5.2 Electric Generation

The ECUC manages the electric generation system. Challenges and strategies for the current system are stated below.

Challenges:

- The high costs for electricity and fuel place a burden on local residents and discourages new business development.
- The electric generators are located near residences and are noisy.
- There is no official manager for the system, and the advisory board of directors meets only occasionally.
- Increased electrical use during peak power use can increase local power costs by increasing the peak load on the generators.
- Some local businesses have individual generators and use their own power or connect to the power grid at their convenience. Joining the power grid at peak power use times may increase local power costs by increasing the peak load on the community generators.

Strategies:

- Investigate feasibility of increasing user fees to pay for a part-time manager for the electrical system.
- Continue to support the Power Cost Equalization Program.
- Investigate feasibility of privatizing the ECUC.
- Evaluate whether potential savings merit implementation of incentives for energy conservation during times of peak use.
- Educate community about energy conservation techniques.

3.5.3 Water System

There are two major water systems in the community, a drinking water system and a non-potable water system. Appendix C presents a recent survey and schematic of the Elfin Cove water system.

Challenges:

- Increased population and visitation in summer strains the capacity of the water system.
- Volunteers manage the drinking water system and perform repairs, maintenance and water sampling. The volunteer-based system has resulted in an absence of management and mandatory water sampling when volunteer help is not available.
- Failure to complete the required water sampling can result in enforcement actions and fines by the Division of Environmental Health in DEC.
- The drinking water system is unfiltered and untreated, and bacteria have been found in the system.
- The water system is subject to freeze up during the winter which results in drainage of the entire system.
- Some lodges use the drinking water system to wash off their fishing boats rather than the secondary, non-potable water system which strains the capacity of the drinking water system.
- The non-potable water system needs repair, and it does not serve all lodges in the community.
- The voluntary $20 fee per user is not enough to pay for costs of managing and repairing the water systems and for completion of mandatory water sampling.

Strategies:

- Investigate whether it is feasible and cost effective to meter water use.
- Investigate whether a mandatory fee system is needed to pay for management and maintenance of the water systems. The fee could be established on a sliding scale reflecting the number of users (e.g., number of bedrooms or bathrooms in a dwelling unit) or actual usage if metering is feasible.
- Develop a management plan for the water systems.
- Hire someone to manage the system.
- Investigate improvements to the system that would reduce or eliminate problems that result when lines freeze.
- Install upgrades to the system to filter or treat the water to prevent bacterial growth.
- Ensure several community members know where the lines go and where the valves connect.
- Educate the community about water conservation technologies.
- Repair the non-potable water system and expand it for use by lodges for routine maintenance and other tasks that do not require potable water. Work with lodges and other users to assure that potable water is not used for these tasks.
- Work with DEC to ensure full compliance with state regulations.

3.5.4 Sewage

There is no community-wide sewage system, and sewage is not managed by the CECNPC. Appendix C presents a recent survey and schematic of the Elfin Cove sewer systems.

Challenges:

- There is no community-wide sewage treatment facility.
- Individual sewage outfalls deposit untreated sewage into the inner and outer harbors resulting in degradation of water quality.
- Effluent discharged in the inner harbor concentrates at the surface.

Strategies:

- Secure funding for a feasibility study for a community-wide sewage system.
- Encourage installation of septic tanks for dwellings that currently discharge sewage directly into marine waters.
- Investigate feasibility of installing septic systems for multiple dwellings.
- Investigate feasibility of alternative systems such as composting toilets (University of Alaska 2007, Alaska Department of Community and Economic Development 1999).

3.5.5 Solid Waste

There is no community solid waste collection and disposal system. A former recycling program is no longer in operation.

Challenges:

- Other than the community burn site, there is no solid waste system for the community.
- Visitors arriving on ships have no where to dump their trash.
- Not everyone sorts garbage correctly for burning at the community burn site.
- No one manages the community burn site.
- Burning garbage affects the local air quality and may affect human health (Solid Waste Alaska Network 2007).
- Open burning is the least effective and most hazardous method of incinerating solid waste (Alaska Energy Authority and Alaska Department of Environmental Conservation 2004).
- An incinerator would be expensive and would require proper disposal of ash.
- There is no formalized system for collection and disposal of non-burnable trash.
- There is no community-wide recycling program.
- There is little land available to develop and land fill.

Strategies:

- Encourage visitors to dispose of their trash in an approved facility outside of the community.
- Develop voluntary burning guidelines (e.g., types of materials that should not be burned, proper temperature for burning, proper disposal of ash, and recommended hours for burning).

- Contact other Alaska rural communities to learn about success stories regarding solid waste incineration and disposal.
- Apply for a grant to update the 1997 study on solid waste disposal alternatives to open burning including use of burn barrels, burn cages, burn boxes, and incinerators (Solid Waste Alaska Network 2007, Alaska Energy Authority and Alaska Department of Environmental Conservation 2004).
- Contact vendors to determine costs for burn boxes and incinerators (Alaska Energy Authority and Alaska Department of Environmental Conservation 2004, Appendix D).
- Secure funding for a burn box or an incinerator if the solid waste study finds this is an appropriate solution, and select site for its location.[1]
- Investigate alternatives for management of the community burn area including developing a secured area and hiring a part-time manager for the site.
- Continue the annual litter clean-up program and encourage annual collection and transport of white goods and hazardous materials to an approved disposal area.
- Educate the community about the importance of the proper disposal of hazardous wastes.
- Investigate options for re-starting a recycling program, including designation of an area for collection and storage of recyclables and alternatives for transportation to a recycling center.
- Until a community recycling program is implemented, encourage individuals to collect and arrange transport of high-value recyclables to a recycling center.
- Investigate feasibility of a solid waste disposal system managed by either the CECNPC or a private company for disposal of non-burnable materials in an approved landfill (e.g., in Gustavus or Juneau).
- Investigate feasibility of the purchase of a barge and tug by the community for storage and transport of solid waste.
- Investigate feasibility of a regional approach to solid waste disposal. A 2006 study provided an initial investigation to a regional solid waste authority (Southeast Conference 2006). Several regional options were identified including shipping waste to a central landfill, a waste-to-energy system using incineration, a waste-to-energy system through conversion to ethanol, and composting. Disposal fees to ship out of state range from $70/ton to $200/ton.

3.6 Community Facilities

Goal: Improve community facilities including the boardwalk, docks, boat harbor, float plane docking facilities, community center, and public restrooms.

Publicly owned facilities in Elfin Cove include docks, boardwalks, and community buildings. Other than the fuel dock, the public docks and boardwalks are owned by the State of Alaska. Community buildings owned by the CECNPC include a multi-purpose

[1] Incinerators that handle less than 1,000 pounds per hour are exempt from regulation by the State of Alaska (18 AAC 50.050). It is likely that a small-scale incinerator would also be exempt from regulation by the Environmental Protection Agency (EPA), but a notification of exemption may need to be provided to the EPA under provisions in 40 CFR Part 60.

community building, a community shop, a fire hall, the powerhouse, and the buildings and equipment located at the fuel dock. Appendix D contains a recent survey of community buildings in Elfin Cove.

Challenges – Docks:

- The public docks are owned by the State of Alaska, but are not actively managed by them. Maintenance is an ongoing concern as the docks are in need of substantial repair. Maintenance is only performed on the docks on a voluntary basis because there are no funds for maintenance.
- The inner harbor has a grid which receives substantial use, although use of grids in Alaska is discouraged by the state and federal agencies for environmental reasons.
- There are no time limits or regulations enforced regarding moorage. Docks are filled on a first come first served basis. The result is that dock use causes a conflict in the community.
- One full finger of the dock in the inner harbor has been used for boat repair and storage of vessels in need of repair. Some in the community want to designate that finger as a "working dock," while others would like to see a more orderly space.
- The State of Alaska owns the public boat and float plane docks, but it does not maintain them. The float plane dock needs repair and upgrade. The Federal Aviation Administration will not provide funds for that repair/upgrade unless it is a standalone dock that only accommodates air service, and Elfin Cove's float plane dock also accommodates boats.

Strategies – Docks:

- Pursue an agreement with DOT&PF for management of the docks and funding for dock maintenance. This can be done through either a harbor reimbursable maintenance agreement or a harbor management agreement:
    - Under a reimbursable maintenance agreement, DOT&PF would set a cap amount of money, and the CECNPC would perform the maintenance and send in billings for labor and materials which would be reimbursed to the cap amount.
    - A harbor management agreement would allow the CECNPC to make regulations at docks, to charge fees for moorage and other services, and to hire people to manage the docks and perform maintenance. The DOT&PF mandates that at least 15% of the income from fees charged goes to routine maintenance.
- If no management agreement is enter into, develop a code of use and post it on the docks.
- The State of Alaska has developed a fund for dock projects, and it plans to supply money for that fund in the future. Secure funding to improve and expand the dock system in Elfin Cove.
- Secure funding for dock maintenance, improvement, expansion and replacement from the Denali Commission, DOT&PF, and other sources.
- A new dock and boat launch is being planned for Gustavus. Since Gustavus has a seasonal jet-serviced airport, residents and visitors could fly in or out of Gustavus and be transported to and from Elfin Cove by a personal or company boat. A

shuttle service could be developed for the Elfin Cove – Gustavus route. Freight and fish could also be transported via Gustavus.

- Find a location for a standalone seaplane float so that the community can receive Federal Aviation Administration funds for development and maintenance of that float.
- Encourage community residents and visitors to be considerate about other dock users needs.

Challenges - Community Buildings:

- The community building and shop are in need of maintenance, but no funds are currently available for that work.
- The room that currently housing the museum was formerly used as the community meeting room. The small size of the current community meeting room constrains the activities accommodated there. Community potluck dinners and other activities are held less frequently as in the past partly due to the smaller size of the new community meeting room.
- The gym is frequently used for storage and other functions and not often available for use as a gym.
- A community library building located on MHTA land is in poor repair, and the MHTA has not shown interest in its upkeep.

Strategies - Community Buildings:

- Reclaim the gym for community gym use.
- Consider ways to fund maintenance of community buildings, including possible restructuring of rental rates.
- Examine ways to make the most efficient use of community facilities, including possibly combining some functions into one building.
- Examine the idea of developing a central area for visitor information, possibly in conjunction with the Elfin Cove Museum.

Challenges - Boardwalks:

- The boardwalks are owned by the State of Alaska and maintained by the community on a volunteer basis. Maintenance of the boardwalks this past winter was particularly difficult due to record snowfall.
- Portions of the boardwalk are in need of repair and/or expansion and the heavy snow load this past winter caused additional damage. In 2007, the community received a grant for $150,000 for some boardwalk repair/expansion, with work being performed this summer. New building code requirements and other factors have increased the building costs, so not all the needed repairs and upgrades can be addressed with the current project.

Strategies – Boardwalks:

- The DOT&PF has determined that it can provide funds to the community for boardwalk maintenance and will likely do so in the future. Follow up with DOT&PF to secure funds.
- Create a voluntary fund to compensate those who maintain the boardwalks in the winter to allow them to remain in good condition through the summer season.

- Seek funding for continued rebuilding and expansion/improvement of the boardwalks.

3.7 Population, Housing and Education

These goals and strategies have been combined in one section here because they are inter-related.

Goal: Increase year-round population of the community.

Goal: Ensure a variety of affordable housing is available to maintain the community.

Goal: Open the school again. Attract families with children to the community.

Residents of Elfin Cove have expressed a desire to see growth in year-round population including the immigration of families with children. The public school in Elfin Cove closed in 1998 when the number of children enrolled dropped below the state-mandated threshold of ten students. There are currently no children of school age residing in Elfin Cove. In the past, residents with school age children spent the school year in nearby communities so their children could attend public school.

The housing stock in Elfin Cove is not adequate to meet demand during the summer season. Affordable housing is particularly difficult to come by in summer. Many of the homes in Elfin Cove were not originally built for winter habitation and many are in need of repair. Lack of affordable housing combined with the fact that no school is operating in Elfin Cove tends to deter young families from moving to the community.

Challenges:

- Jobs are in short supply in Elfin Cove.
- Housing options in the community are limited. Many of the homes were not built for winter habitation and are in poor condition.
- Public schools in Alaska will not operate without at least ten students. The closing of the school caused out-migration of families with school-aged children, at least during the school year. New families with school aged children do not move to Elfin Cove because there is no school.
- Transportation and utility costs can make living in Elfin Cove challenging.
- Since there is no municipal government in Elfin Cove, there are no zoning regulations or local building codes. Statewide building codes only apply to commercial and public buildings. While there are statewide fire and building codes, the state generally does not inspect buildings or enforce the codes.
- Municipal zoning regulations can be used to encourage development of particular types of housing in a community. Some types of housing can be less costly than others. For example, multifamily housing can lower costs of individual units by taking advantage of things such as common walls, shared utility connections, and a smaller footprint. Zoning powers are only allowed within a municipal government.

Strategies:

- Many of the strategies under other categories in this report are appropriate in this section. Improvements to infrastructure, transportation, housing, education, health care, and economic opportunities could encourage more people to move to Elfin Cove.
- Investigate and identify lots available for housing development.
- Encourage construction of housing that is affordable, and that will withstand the winter weather in Elfin Cove.
- Continue to encourage families to move to Elfin Cove. Eventually, there may be ten or more school aged children in the community, and a school could reopen.
- Search for teachers with children, and encourage them to consider working in Elfin Cove once ten or more children (including their own) reside there.
- Work to create economic development in the community to encourage new residents.

3.8 Health Care

Goal: Expand health care services and facilities.

Elfin Cove has a small clinic room and an EMS with three or four residents who volunteer as first responders.

Challenges:

- EMS training takes time. Although expenses for the training are paid, the trainees' time is not compensated.
- The clinic room needs an exam table and an oxygen delivery system.
- There is no safe reliable place for helicopters to land for medical evacuations.

Strategies:

- Secure funding through the regional EMS district or other sources for an exam table and an oxygen delivery system.
- Secure funding to fully compensate EMS trainees for their training time, as well as their training expenses.
- Secure ongoing funding for equipment upkeep and upgrade, and ongoing EMS training for local residents.
- Locate a site and develop a dedicated helicopter landing facility for medical evacuations.

3.9 Communication

***Goal*:** Improve communications systems (telephone, internet and postal service).

Elfin Cove receives local telephone service from ACS of the Northland and long distance telephone service from AT&T Alascom. A U.S. Post Office is located in the community

building, and mail delivery to the community is contracted to a regional air carrier. Internet service is available through dial up and satellite.

Challenges:

- A regional air carrier has the contract for mail delivery. However, mail is generally only sent when space on flights are not taken by passengers, luggage and freight. Consequently, mail delivery is sporadic.
- Satellite internet and fiber optic internet connections require costly equipment.

Strategies:

- Investigate opportunities to improve phone and internet services in the cove.
- To improve frequency and consistency of mail delivery, work to improve transportation options to Elfin Cove, such as scheduled marine freight service and/or ferry service.

3.10 Community Leadership and Organization

Goal: Develop sustainable systems to encourage leadership, deliver services and utilities, maintain community facilities, and obtain and manage grants.

The current organization of Elfin Cove has many advantages, but it also poses a number of challenges in the delivery of services and utilities and grant management. Leadership is an important factor in community decision making, the delivery of services and in the implementation of a community plan. This section lists some of the challenges facing the community and strategies to address these strategies and to seize opportunities.

In general, residents value the lack of government interference in their lives. Some residents, however, believe that a more formal government is either desirable or inevitable. Almost all residents, however, oppose incorporation into a borough. Appendix F includes a discussion of some options available for the future governance of Elfin Cove.

Challenges:

- ***Finances:***
  - The CECNPC's finances are not sustainable without new revenue sources.
  - The CECNPC has no taxing authority and has limited options for generating income.
  - Because each committee that collects revenues maintains separate records, there is a potential for different standards in record keeping.
- ***Grants:*** Preparation of grant applications and management of grants is difficult without a dedicated grant writer.
- ***Land Use:*** As a nongovernmental entity, Elfin Cove has no planning or land use powers. As a result, it depends on voluntary compliance regarding land use initiatives by the CECNPC.

- ***Volunteer Base:*** The CECNPC depends on volunteers for board positions, for committees, and for providing some services. Dependence on the same pool of volunteers can lead to burnout.
- ***Decision Making:*** Currently, most decisions must be made at community-wide meetings. This system can be unwieldy when a quick decision needs to be made. Residents report that at times certain groups have "stacked" community meetings, and at other times some important decisions have been made by committees.
- ***Cooperation:*** Responses to the 2006 community survey indicated that nearly 80% of the respondents believe the failure of community members to work together either severely or somewhat threatens the quality of life.
- ***Board Operations:***
    - While the board is responsible for the affairs of the corporation, the CECNPC bylaws limit the authority of the board. The CECNPC board seldom meets on its own.
    - The committees operate independently and do not report to the board.

Strategies:

- ***Finances:***
    - Investigate establishing mandatory user fees to fund utilities and services such as water use.
    - Investigate establishing user fees for dock usage if an agreement is reached with the State of Alaska for the CECNPC to manage the docks.
    - Investigate establishing a voluntary assessment of property owners (e.g., standard fee per lot, fee based on number of bedrooms, fee based on whether the landowner uses the property for a commercial enterprise). Funds from this assessment could be used to fund community services such as snow shoveling, management of the community burn site, and annual backhaul of broken appliances and other similar items.
    - Allocate a reasonable percentage of each grant for administration by the CECNPC.
    - Develop and approve a manual that establishes accounting procedure for the corporation and its committees.
    - Develop procedures for hiring staff or contractors.
- ***Grants:***
    - Prioritize grant needs on an annual basis.
    - Provide a grant training workshop in the community.
    - Hire a part-time grant specialist or a consultant to prepare grants.
- ***Land Use:*** Develop a voluntary compliance program for land use issues that may arise such as use of docks for commercial purposes, use of community burn sites rather than individual sites, standards for new individual sewage systems, and community beautification principles.
- ***Volunteer Base:***
    - Encourage regular rotation of volunteer duties among the community.
    - Provide a training session in the community for management of volunteer programs.
    - Expand community libraries to include books about managing volunteer programs.

    - Develop a list of jobs that merit hiring of paid staff or contractors.
- ***Decision Making:***
    - Contact other unincorporated communities nonprofit associations to determine if their experiences can be applied to Elfin Cove.
    - Determine what kind of decisions should always be made by the entire membership.
- ***Cooperation:*** Secure funds from a nonprofit group for a trainer specializing in methods to improve community cooperation.
- ***Board Operations:***
    - Contact other nonprofit community associations to determine how their boards operate.
    - Amend the bylaws to clarify procedures by which the corporation membership can delegate authority to the board for certain matters.
    - Establish a system where committees report to the board and the board brings recommendations to the general membership for action as appropriate.
    - Approve a code of ethics for board members.
    - Develop clear job descriptions for each board member.
    - Send representatives of the board to nonprofit training sessions (e.g., The Foraker Group training).

CHAPTER 4: PLAN IMPLEMENTATION

The CECNPC emphasized the need to make the community plan a "living plan." To attain this objective, it will be necessary for the community to establish annual work plans, prepare project action plans, monitor implementation of the plan, re-evaluate the goals of the plan, and revise the plan when necessary.

4.1 Annual Work Plans

Development of annual work plans provides an effective way to keep a plan alive. Using this technique, the CECNPC will develop a plan each year that outlines the goals it hopes to accomplish, and the strategies used to get there. The annual work plan provides a tool to agree upon community priorities in the coming year. It can be a brief document listing projects and strategies to implement plan goals. The work plan should be considered a guide, and it may be amended at any time to take advantage of opportunities such as unexpected grant programs or opportunities from legislation.

4.2 Project Action Plans

For each project covered by the annual work plan, action plans will be developed. CECNPC committees will develop action plans for approval by the membership or the board. The board chair will work with the committee chairs to monitor progress of action plan implementation.

Plans will include benchmarks for measuring progress of each strategy. In addition, parties responsible for each action will be designated.

4.3 Plan Monitoring, Reevaluation, and Updates

Periodically, the board will monitor the success of implementation of strategies for the overall plan goals. The board may prepare reports to the general membership about its assessment of plan implementation.

The board will reevaluate the goals of the plan on an annual basis to determine if the goals are still relevant to the community. When the plan becomes outdated, the community will update it. In addition, plan supplements addressing specific topics (e.g., transportation, emergency management, and special management areas) can be added to the plan as warranted. Plan revisions should be strategic to address specific concerns or to take advantage of emerging opportunities.

REFERENCES

Alaska Department of Commerce, Community and Economic Development. 2007. Unpublished data about Alaska municipalities.

Alaska Department of Community and Economic Development. 2003. *Nonprofit community association handbook*. Division of Community Advocacy. Anchorage.

_____. 1999. Alaska sanitation planning guide for small communities.

Alaska Department of Environmental Conservation. 2007. Environmental Health Division, Food Safety and Sanitation Section. Website accessed for fish processor licensees. http://www.dec.state.ak.us/eh/fss/seafood/seafood.htm

_____. 1997. Sanitation facilities feasibility study for the community of Elfin Cove, Alaska. Prepared by Village Safe Water.

_____. 1994. Fact Sheet: Case study: Community recycling program. Division of Environmental Quality.

Alaska Department of Fish and Game, Commercial Fisheries Entry Commission. 2007. Accessed website for fishery data. http://www.cfec.state.ak.us/

Alaska Department of Labor and Workforce Development. 2007. Website accessed for population and employment data. http://almis.labor.state.ak.us/

Alaska Department of Natural Resources. 2007. Website accessed July 13, 2007. http://mapper.landrecords.info/

_____. 2002. *Northern southeast area plan.* Division of Mining, Land and Water, Resource Assessment and Development Section. Anchorage.

_____. 1997. Memorandum from Nan Schoenbach, Natural Resource Manager, to Roger Burleigh, Alaska Department of Environmental Conservation, Village Safe Water.

_____. 1983. *Geothermal resources of Alaska.* Map produced by the Division of Geological and Geophysical Surveys. Anchorage.

Alaska Department of Transportation and Public Facilities. *Alaska Harbor Directory*. 1995.

Alaska Energy Authority and Alaska Department of Environmental Conservation. 2004. *Burning garbage and land disposal in rural Alaska: A publication for small Alaska communities considering incineration and energy recovery.* Anchorage.

Alaska Mental Health Trust Authority. 2007. Website accessed July 13, 2007. http://www.mhtrustland.org/index.cfm?section=Maps

Alaska Natural Heritage Program. 2007. Weed Ranking Project. Website accessed June 13, 2007. http://akweeds.uaa.alaska.edu/akweeds_ranking_page.htm

Alaska Power Authority. 1983. *Reconnaissance study of energy requirements and alternatives, Appendix: Elfin Cove.* Prepared by ACRES.

_____. 1984. *Supplement to the Elfin Cove reconnaissance study.*

Betts, M. F., Schroeder, R.F., Thornton, T., and A.M. Victor. 2003. *Subsistence Resource Use Patterns in Southeast Alaska: Summaries of Thirty Communities.* Unpublished report. Alaska Department of Fish and Game, Division of Subsistence. Technical Publication 216.

Cagle, Jamie. 2007. Personal Communication. Representative, Allen Marine, June 7, 2007.

Combellick, R.A., and R. J. Motyka. 1995. *Geologic hazards in the Yakataga planning area, Southeastern Alaska: An overview.* Miscellaneous Publication 34. Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys.

California Coastal Commission v. Granite Rock Co. 1987. Supreme Court Decision. No. 85-1200.

Cruise Line Agencies of Alaska. 2007, Southeast Alaska cruise ship calendar for 2007 season available on webpage http://www.claalaska.com/

Dale, Joan. 2007. Personal Communication. Archaeologist. Office of History and Archaeology, Division of Parks and Outdoor Recreation, Alaska Department of Natural Resources. July 3, 2007.

Dowe, Barbara. 1992. *Elfin Cove recycling program: A study.* 20 p.

EPRI. 2006. *Tidal in-stream energy resource assessment for Southeast Alaska: Report to Alaska Energy Authority.* Energy and Environmental Combustion Laboratory, University of Washington, Seattle.

_____. 2005. *White paper submitted to the Western Governors Association Clean and Diversified Energy Advisory Committee: Ocean wave energy conversion technology.*

Grewe, N. and E. Caldwell. 2006. *Elfin Cove, Alaska: Community survey report.* Community of Elfin Cove Non-Profit Corporation with assistance of the Division of Community Advocacy, Alaska Department of Commerce, Community and Economic Development. Juneau.

Hansen, R.A., and R. A. Combellick. 1998. *Planning scenario earthquakes for Southeast Alaska.* Miscellaneous Publication 34. Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys.

Hines, A.H. and G.M. Ruiz, editors. 2001 *Marine invasive species and biodiversity of South Central Alaska.* Smithsonian Environmental Research Center. Prepared for the Regional Citizens' Advisory Council of Prince William Sound.

Leon, Hap. 2007. Email to Gordy Wrobel with an analysis of the community's summer population. July 26, 2007.

Local Boundary Commission. 2001. *The need to reform state laws concerning borough incorporation and annexation.* State of Alaska. Anchorage.

Lowell, John. 1945. Elfin Cove fish buyer in *The Alaska Sportsman.* May 1945. Pp. 14-25.

Nye, C.J. and J.T. Kine. 1990. *Preliminary description of data collected during the state-EPA home radon study.* Alaska Division of Geological and Geophysical Surveys, Alaska Department of Natural Resources. Fairbanks.

Perkins, Shirley. 2007. Personal Communication. Elfin Cove EMS. June 23, 2007.

Robinson, Dan. 2007. Personal Communication. Southeast Regional Economist, Alaska Department of Labor and Workforce Development. June 19, 2007.

Seifert, Richard. 2005. *A solar design manual for Alaska: Integrating solar features into your Alaskan home.* Cooperative Extension Service. University of Alaska, Fairbanks.

Sheinberg Associates. 2007. *Economic feasibility assessment Glacier Bay Chatham Borough*. Prepared for the Alaska Department of Commerce, Community and Economic Development. Juneau.

Snodgrass, T. M. 1971. *A community planning study for Elfin Cove.* Paper prepared for a University of Alaska class. College, Alaska.

Solid Waste Alaska Network. 2007. http://www.ccthita-swan.org/main/index.cfm Website accessed August 3, 2007.

Southeast Conference. 2006. *Municipal solid waste disposal alternatives Southeast Alaska: Developing regional solutions.* Prepared by Smith Bayliss LeResche Inc. Funded by the USDA Rural Development. Juneau.

Speidell, Mary. 2007. The front porch is the post office: An oral history of Elfin Cove, Alaska. Self published. Elfin Cove.

Sperling's 2007. Accessed Sperling's Best Places – Neighborhood Profiles website. http://www.bestplaces.net/zip-code/

State of Alaska. 2004. 2004 Alaska State All Hazard Mitigation Plan. http://www.ak-prepared.com/plans/mitigation/statehazmitplan.htm Accessed June 10, 2007

Straube, Phelan. 2007. Personal Communications. Energy Coordinator, Southeast Conference. June 4 and June 16, 2007.

Swanson, E.O. 1964. My life in Alaska: From Codfish to Cohoes in *Alaska Sportsman*. Pp. 8-62

TRC Environmental Corporation. 2006. Application to the Federal Energy Regulatory Commission for the Icy Passage Tidal Energy Project on behalf of the Alaska Tidal Energy Company. http://elibrary.ferc.gov/idmws/nvcommon/NVViewer.asp?Doc=11068872:0

University of Alaska. 2007. Website accessed August 3, 2007. http://www.uaf.edu/ces/faculty/seifert/pdf_nuaf/Septic&WastewaterSystem.pdf Unpublished list of alternative septic systems.

U.S. Bureau of Transportation Statistics. 2007. Accessed website for air carrier statistics. http://www.transtats.bts.gov/

USDA, Forest Service. 2003. *Tongass land management plan revision final supplemental environmental impact statement roadless area evaluation for wilderness recommendations*. R10-MB-481a

_____. 1997a. *Tongass National Forest land and resource management plan, forest plan map*.

_____. 1997b. Final environmental impact statement, Tongass National Forest land management plan revision, Alaska.

Weltzin, Paul. 2007. Personal Communication. Owner, Sealevel Transport. June 12, 2007.

Western Region Climate Center. 2007. Website accessed June 13, 2007. http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ak2785

Wrobel, Gordy. 2007. Personal Communications. Chair of CECNPC.